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Why the Naval Engineers Wish Positive Rank.

Senate Bill 725 and H. R. 3,618, for the reorganization of the engineer corps of the navy, reference to which has been previously made in these columns, provides in section 4 that the naval engineers shall have various ranks of the same name and grade as in the line of the navy. At present they are given a so-called "relative" rank. The reasons why the proposed changes should be made are briefly as follows:

The official status of the engineer officers under existing conditions is not as well defined as that of the line officers, nor are their relations to the men of their division so specifically and definitely determined. This has hampered the engineer officers seriously in their relation with their men, and in their efforts to bring them to the highest state of efficiency. The pith of the whole matter is, then, that existing conditions place the engineer at a disadvantage relative to the deck officer, in the management of his division. Extended proof can not, of course, be given here, but it will be perfectly evident to anyone who will take the trouble to examine the question in its various bearings. The readers of the REVIEW are well acquainted with the rapidly-growing importance on naval ships of the engineer and his division. In numbers it may be nearly one-half the entire ship's company. The absolutely vital importance of this machinery, and the necessity of its being maintained in a condition of the highest efficiency, renders fatal to the best interests of the service any system of rank and position which in any way interferes with the official organization and control of this body of men. In time of battle the engineer's force is called on to work under peculiarly trying conditions. They are shut up below the decks, frequently in hermetically sealed compartments, and in absolute ignorance of the progress of events above, and in complete uncertainty as to the probable or possible issue of the next moment. This ignorance and uncertainty give rise to an intense nervous strain, and no task in the whole range of ship discipline and organization can be more trying than to hold men under such conditions under proper control, and maintain them in a state of good working efficiency. As an aid in this task, the engineers of the navy ask for the reorganization contemplated in this bill.

The magnificent success of the new navy is in large measure due to the work of the naval engineers, and no class of men is more concerned with the success of future efforts, or more anxious to maintain the ships already built in the condition of highest efficiency. The present system of organization with modern ships may be said to have been on trial about three years, and it has in that time completely demonstrated its unsuitability. For war purposes the days of the sailing ship are gone. We are in a new age of naval architecture, and an organization which was satisfactory and suitable under the conditions existing forty and fifty years ago, is certain to be now an anachronism.

By those who oppose the measure it has been said that the engineer seeks to get above his position, or that he seeks ultimately to get complete command of the ship. This is entirely incorrect. Those who know the naval engineers and their devotion to their profession, know well that they will never seek to get above their work. Neither do they seek, nor is the measure proposed in any way a step toward, the attainment of the command of ships. They believe simply that the time has come when the engineer and his profession should not be considered second in importance to anything, and that they should receive all possible aid in doing in the very best way the work which is placed in their hands.

The names captain, commander and lieutenant have no etymological or literal reference to the duties of the officers who now bear these titles, and there is no reason why these names should not be extended to the officers of the engineer corps, with the name of the corps added to distinguish the branch of the service to which they belong. This is the system in use in the army, where the conditions are quite analogous, and it has been found to work admirably.

The request for the reorganization embodied in this bill is reasonable, it is just, it is in the spirit of the age, and in the interests of increased efficiency. Congress should not longer delay a settlement of this question, which is bound to come sooner or later.

The Minnesota Iron Co. has resumed payment of 1½ per cent. quarterly dividends. The present dividend is payable April 15.

"ROPER'S LAND AND MARINE ENGINES," BOUND IN MOROCCO WITH FLAP AND POCKET, WILL BE MAILED TO ANY ADDRESS FOR \$3.50 SENT TO THE MARINE REVIEW, CLEVELAND, O.

Men Who Have a Knowledge of Ships.

BRIEF NOTES REGARDING WRECKING MASTERS WHO REPRESENT VARIOUS LAKE INSURANCE AGENCIES—SOME OF THEM IN ACTIVE SERVICE FOR NEARLY FIFTY YEARS.

It was promised when the REVIEW last week printed, as a supplement, a portrait group of ten wrecking masters, who are engaged with marine insurance agents on the lakes, that a few notes regarding their connection with lake shipping would follow in this issue. Three or four of these men have sailed lake vessels, or have otherwise been associated with vessel interests here, for nearly half a century. All of them have been selected on account of their knowledge of ships, and the following brief sketches regarding them will certainly prove interesting to the wide circle of acquaintances which they have in every part of the lakes:

For forty-six years Capt. Geo. McLeod of Buffalo has been connected with the operation and insurance of ships, and he is still apparently as active as a man of thirty years. He has been on the lakes for forty years, and is known to almost everybody who owns or sails a lake vessel. In 1850, when the grand American clipper ships were engaged in the East India trade, he began sailing. In 1854 he was advanced from before the mast to third mate, and in 1855 to second mate. Then upon returning to New York in 1856 he resolved to take Horace Greely's advice and go west. After making one trip before the mast out of Buffalo he was promoted to second mate, and in 1857 he had a first mate's position. In 1861 he was given command of the schooner Plover and in 1863 he was in the bark Desota. At that time the Desota, which was capable of carrying about 25,000 bushels of wheat, was one of the largest vessels on the lakes. These vessels, as well as the Flying Mist, which Capt. McLeod sailed in 1865, were owned by members of the Winslow family, who were the leading vessel owners, but who have all since passed away. In 1866 Capt. McLeod began sailing Chicago vessels, and was in command of the barks St. Lawrence and Northwest, the latter of which was said to be one of the fastest sailing vessels ever built in this country. He joined Wiley M. Egan in insurance business in Chicago in 1874, but returned to sailing two years later, and commanded the schooners Red White and Blue, Lucerne and Porter, before accepting, in the winter of 1880, the position of marine inspector and wrecking master for Smith, Davis & Co., with whom he is still engaged.

Capt. W. H. Rounds of Chicago, who is engaged with the Aetna company, was born at Sackets Harbor in October, 1823. At fifteen years he shipped as cook on a small schooner, but was forced to return to farming, as he says cook books were not plentiful in those days and his limited experience without one was not sufficient to suit the aesthetic tastes of the skipper who engaged him. He shipped again in 1841, this time before the mast in the schooner Asa Wilcox, and was later in the schooner Madison. In 1845 he was appointed mate of the Wilcox and in 1846 had charge of her. During the following two years he was mate of the propeller James Wood and in 1849 he was appointed master of that vessel. Then he spent three years in California, but he returned to the lakes and for three seasons sailed the propellers Delaware and Nile. He also spent a year on the Mississippi, and upon his return again to the lakes in 1858 took command of the propeller Free State, which he sailed for six years. The propeller Fountain City was also commanded by him for three years—1864 to 1866 inclusive—after which time he was for thirteen years engaged with the Aetna company. In 1879 he again took up sailing and commanded the propeller Milwaukee for two seasons, 1879 and 1880. Since that time he has been engaged with the old Aetna, and it will thus be seen that this veteran sailed during twenty-five years and has been in the insurance business twenty-eight years. He is now seventy two years of age.

John V. Tuttle of Milwaukee has been engaged in lake transportation and marine insurance on the lakes since May 1854, a period of forty-two years. He is a practical ship carpenter, having learned his trade in the ship yard of Lafrinier & Stevenson, during the early fifties. The yard at that time was located on the old river bed, Cleveland, half way between Willow street bridge and the water works. Capt. Tuttle afterwards passed up through all the grades, from seaman to master of some of the best lake sailing vessels and steamers. He began inspecting vessels for the hull register during the winter of 1872-3, and in 1876 retired from sailing to accept the position of marine inspector for the Northwestern National Insurance Co., at that time one of the leading marine insurance companies on the lakes. For twenty years past he has been engaged in marine insurance at Milwaukee.

Capt. A. L. Fitch, who is with C. W. Elphicke & Co., has also been

associated with shipping interests for about forty-five years. He has a war record to which he seldom refers, but which is enviable in many respects. He served in the United States navy through practically the entire late war period. His first sailing was in the brig *Banner* in 1851. He was ashore later in Chicago for a short time as western agent of the Lake Navigation Co., one of the old lines, but was engaged before the mast most of the time until 1858, when he got a little vessel, the *Arbella*, to sail on Lake Michigan. Upon the opening of the war in 1861, he organized, with others in Chicago, a company of infantry, but they were not accepted, and Capt. Fitch entered the navy as a seaman. After serving in this capacity for one year he returned to the lakes, but only for a short period, as he soon joined the Thirteenth New York Marine Artillery, organized to co-operate with the army, and in this service he commanded several gunboats until the close of the war. In 1866 he was again on the lakes in command of the schooner *Japan*, and later in the *John Kelderhouse*, *Reed Case*, *Annie Voight* and *Theodore H. Howland*. In 1880 he built the schooner *Thomas L. Parker* and sailed her for five years. His last command was the *Josephine*, a well-known Chicago vessel. Capt. Fitch has been with C. W. Elphicke & Co. for six years, and was in an insurance partnership with P. H. Fleming of Chicago for a short time before taking the position which he now holds.

Unlike other members of the photographic group, Capt. Daniel McLeod, manager of the Inland Lloyd's Register, is not employed by a single agency. His duties have reference only to compiling the register, but the experience demanded of him is the same as that of the others. He also has been connected with shipping affairs since 1850. He was on the coast for seventeen years, before coming to the lakes in 1867. He sailed in different capacities on the lakes until 1872, when he engaged in ship yard work in Chicago and remained at it, owning a yard himself part of the time, until 1887, when he was appointed inspector of vessels for the register. In 1890 he was appointed manager of the register and still holds the position.

Capt. C. M. Davis, representing David Vance & Co. of Milwaukee, comes of a family of sailors. He is sixty years of age. Erie, Pa., was his birthplace. His grandfather was a sailor, and his father, Capt. David J. Davis, was Gen. C. M. Reed's most trusted employee and fleet commodore for twenty-one years. Capt. C. M. Davis began sailing early in life, and after long service on sailing vessels he was made master of the propeller *City of Madison*, in 1868, running between Chicago and Superior City, in a line of which the late A. T. Spencer was manager. Two years later he was appointed to the command of the propeller *Cuyahoga* of the same line. After four years' service in this line, he brought out Capt. Thos. Wilson's first steamer, the *D. M. Wilson*. Five years later he was master of the steamer *V. Swain*, then in her palmy days. In 1881 he brought out the Republic Iron Co.'s first steamer, called the *Republic*, but now the steamer *Marquette*. One year later he brought out the steamer *Continental* for the same company. After eight years of service in the Republic Iron Co.'s employ, he bought an interest in the steamer *Roswell P. Flower*, had charge of her three seasons and then accepted his present position of wrecking master for David Vance & Co.

Although not among the the older men in the group, Capt. Cyrus Sinclair has probably had as varied an experience as any. He represents C. A. Macdonald & Co. of Chicago, and bears some of the shrewd traits of character that have caused many vessel owners to tie to "Charley" Macdonald in insurance matters. It is probably not generally known that Capt. Sinclair was originally from Simcoe, a small place back of Port Dover, Ont. He began sailing before he was twenty years of age, and was best known to the older vessel men as a captain of river tugs, towing vessels between Lakes Huron and Erie. Some of the most prosperous men in the vessel business graduated from this branch of the service. In 1871 he sailed the *Iron City* in the oil trade, between Cleveland and Buffalo, for Mr. Frank Rockefeller, now vice-president of the Standard Oil Co. His first practical experience as a wrecking master was gained in 1874 to 1878 when he was in charge of wrecking appliances at Cheboygan. After leaving Cheboygan he sailed for Capt. James Davidson in 1879 and 1880, and then moved to Chicago where he was in charge of harbor tugs owned by Geo. P. Gilman. He started the Chicago Tug Line for Mr. Gilman, and when a pool of tugs was organized later on he was manager of twenty of them. In 1886 he was appointed government inspector of hulls in Chicago and held that position until 1894, when he resigned to accept the place which he now holds with C. A. Macdonald & Co.

Capt. John Perew of Buffalo, representing Worthington & Sill, was for twelve years master of two steamers. He was for seven years in the *John B. Lyon* and five years in the *A. P. Wright*. He began sailing in 1862. For three winters before engaging with Worthington & Sill he inspected vessels for the register and thus became acquainted with details of that part of the work. He is now in his fourth year with the Buffalo firm.

William Morris of Detroit, representing the Detroit Fire & Marine Insurance Co., is a ship carpenter and has been employed as such since 1846. He has been foreman and master builder since 1855, being for the

past fourteen years assistant superintendent of the lower dry dock at Detroit.

Capt. J. G. Orr, who represented P. H. Fleming & Co., is also a veteran in lake service, and is known to have had a lengthy experience with ships before engaging in the insurance branch of the business, but the details in his case are not at hand.

Approaching a Settlement of Ore Matters.

It is authoritatively given out that within two weeks the ore sales agents of Cleveland will announce prices of ore. There are no differences among them regarding the agreement as to prices and output, excepting such as are of a minor kind and have only awaited the return of certain members of the association who have been away from Cleveland on vacations. All parties to the agreement can now be reached and these details will be fixed up as soon as possible. All of the ore men express the opinion that the final decision as to prices will be conservative enough to satisfy the furnace interests, and that sales will follow soon after the announcement. All that can be said regarding freights is that the ore dealers will try to make contracts on a basis of \$1 for the full season from the head of Lake Superior. Vessel owners demand a better freight. They can get it if an effort is made to secure united action. Otherwise the outcome is doubtful.

Appointments of Masters and Engineers.

Calvin Co., Hiram A. Calvin, Manager, Garden Island, Ontario; Steamers—D. D. Calvin, Capt. A. H. Malone, Engineer Thos. C. Smith; Chieftain, Capt. David Lefave, Sr., Engineer Thomas Gray; William Johnston, Capt. David Lefave, Jr., Engineer Edward Felix; Armenia, Capt. Charles Coons, Engineer James McGillivray; Reginald, Capt. John Sullivan, Engineer John Kennedy; Bothnia, Capt. George O'Brien, Engineer George Booth; Traveller, Capt. Alphonse Cossette, Engineer George Sauve; Hiram, Capt. Ephraim Martin, Engineer John Simons. Schooners—Ceylon, Capt. Fred. Roguey; Norway, Capt. James Crosby; Valencia, Capt. John Ferguson; Augustus, Capt. Joseph Achie.

Booth, A., Packing Co., Chicago: Steamers—Hiram R. Dixon, Capt. Jacob F. Hector, Engineer E. Evans; Hunter, Capt. Andrew Clausen, Engineer Geo. Beloir; S. B. Barker, Capt. E. S. Smith, Engineer Frank Cook. Tug—F. R. Anderson, Capt. Fred. Hadlund, Engineer Samuel McCurdy.

Crosthwaite, J. L., Buffalo: Steamers—Cormorant, Capt. Duncan Buie; St. Louis, Capt. George A. Symes. Schooners—A. B. Norris, Capt. D. O'Hagen; Potomac, Capt. H. J. O'Hagen; Champion, Capt. R. A. Mathewson.

Canadian Pacific Steamship Line, Owen Sound, Ont.: Steamers—Manitoba, Capt. E. B. Anderson, Engineer R. Kenny; Athabasca, Capt. G. McDougall, Engineer Wm. Lockerbie; Alberta, Capt. J. McAllister, Engineer A. J. Cameron.

Union Transit Co., H. C. French, General Manager, Buffalo: Steamers—Avon, Capt. Thos. H. Stafford, Engineer Chas. Conshaine; Portage, Capt. S. E. Chatterton, Engineer Geo. Haig; J. M. Nicol, Capt. Wm. McLean, Engineer Geo. E. Tretheway; Eber Ward, Capt. M. G. McIntosh, Engineer John R. Judge; J. V. Moran, Capt. D. O. Bordeaux, Engineer Jas. H. Countryman; W. H. Stevens, Capt. John H. Maloy, Engineer John E. McSweeney; Jas. Fisk, Jr., Capt. John McIntosh, Engineer Fred F. Sherwood.

Buckley & Douglas Lumber Co., Manistee, Mich.: Steamer—Ed. H. Buckley, Capt. Chas. Gnewuch, Engineer Richard Winkler.

Hebard, Charles, Pequaming, Mich.: Steamer—Charles Hebard, Capt. James Parsons, Engineer Wm. Schumacher. Schooners—Aloha, Capt. Wm. Elliott; Annabel Wilson, Capt. Dan'l Nathan; Annie M. Peterson, Capt. Charles Baugh.

Lake Erie Transportation Co., Toledo, O.: Steamers—S. C. Reynolds, Capt. Henry Root, Engineer J. H. Mullen; John C. Gault, Capt. C. H. Lewis, Engineer Joseph Kohlburne; Russell Sage, Capt. T. C. Henry, Engineer John Busterd.

Sullivan, L. S., Toledo, O.: Steamer—David W. Rust, Capt. Wm. J. Leavor, Engineer Jerry Shampaign. Schooners—C. C. Barnes, Capt. Geo. W. Burtis; John Schuette, Capt. John O. Johnson; H. H. Badger, Capt. Oscar, H. Brown.

The Michigan sales office of Henry R. Worthington, 155 Jefferson avenue, Detroit, entertained the Marine Engineers' Association No. 3, Saturday evening. There were present about one hundred members of the association, who spent a very pleasant evening looking over pumping machinery in all its details. The company's office was brilliantly illuminated. An orchestra entertained the guests with excellent music, and Mr. Cronenwette acted as toastmaster at a collation that was served down stairs. The Worthington company was represented by Mr. F. B. Slocum, Michigan sales manager, assisted by Salesmen W. R. and Chas. Marentette and Mr. Anderson of the Chicago office. The reception lasted about three hours and the engineers spoke highly of the royal entertainment given them by the Worthington company.

New-Found Friends.

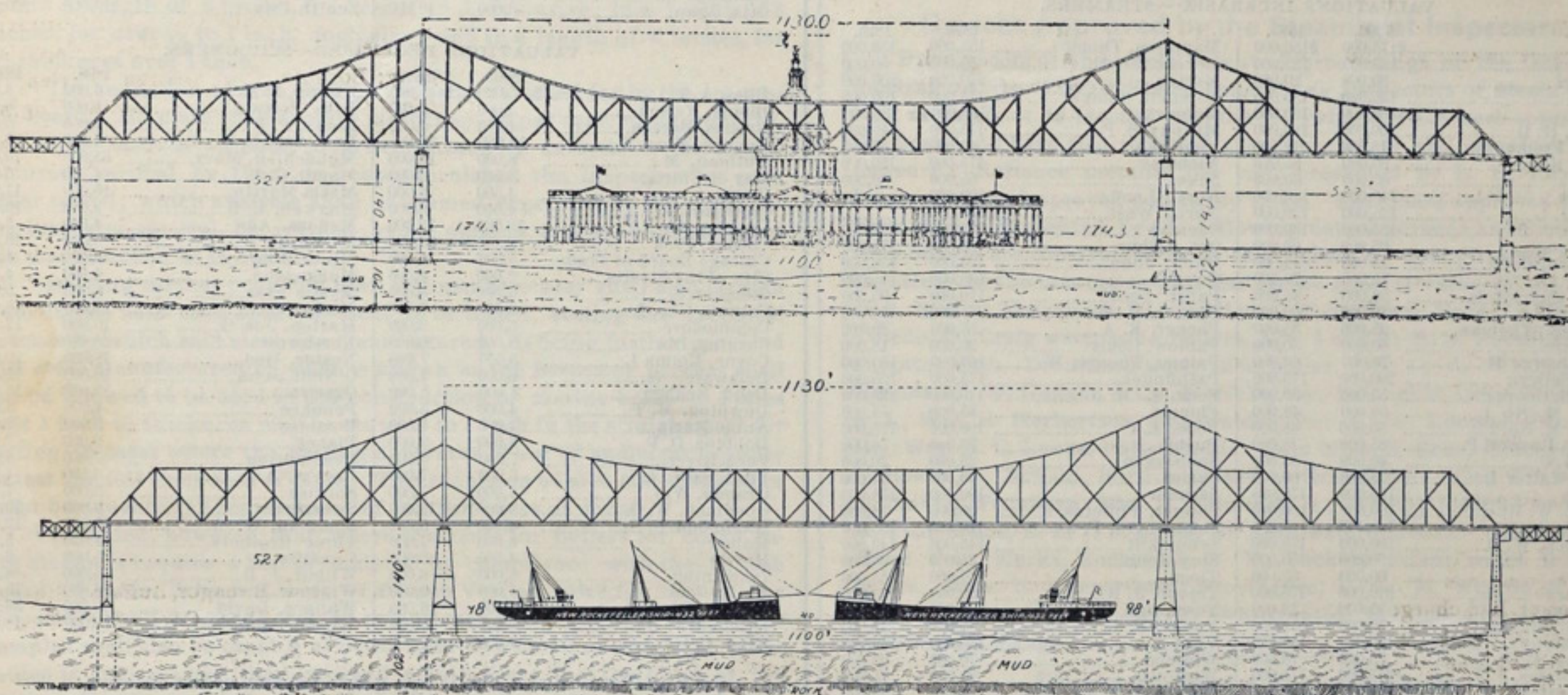
CHICAGO STIRRED UP OVER ITS RIVER INTERESTS—A REPORT BY MAJOR MARSHALL, FAVORING SOUTH CHICAGO, IS THE CAUSE OF NEW INTEREST IN THE MAIN HARBOR.

CHICAGO, Ill., March 11.—Chicago has never been so worked up over its harbor facilities as it has been for the past ten days. The delegation of fourteen members, representing all the diversified interests of river commerce, had scarcely returned from Washington with the hope that an appropriation of \$700,000 for dredging the river would be made, before everything was upset by a report to the war department by Major W. L. Marshall, engineer in charge of government work. Major Marshall, while not taking up the question of dredging the river to 16 feet for the government at all, devoted his attention in strong language to the necessity of a 20-foot harbor in the city of Chicago by the time the great 20-foot channel between the upper lakes shall have been completed a year or more hence. He considered that the most available place for this deep water harbor was at South Chicago, stating in broad terms that he did not think a 20-foot channel in Chicago river was feasible. Wide generalization about the decadence of Chicago marine interests and other matters in the report brought on the major such a storm of indignation as has never been seen in Chicago during all the years that corrupt city councils and designing mayors were slowly but surely choking the life out of the river commerce of the city.

The river improvement association at once met and prepared to combat Major Marshall's statement. A meeting of the leaders in the

It has been Major Marshall who has stood like a rock against the steady encroachments upon the navigable channel which selfish interests in all directions have attempted. Whenever the marine men have had a just cause for complaint they have found justice in the United States engineer and through him in the war department. No influence of corporations, of city councils or mayors has led him an inch out of his way in doing justice between the conflicting claims of water and land traffic. Had an engineer of weaker mold had charge of government work here, there would have been nothing left for the River Improvement Association to do by the time it began its agitation. If the new movement for the improvement of the river goes so far as to ask that Major Marshall be taken away from Chicago, that same day will see the strongest protest against such action ever drawn by the marine interests going to Washington by the same mail which carries the request for his humiliation.

All this does not mean that Major Marshall has not made a serious mistake, but his mistake was wholly justifiable. During the seven years that he has been stationed at Chicago he has hitherto seen an utter indifference as to what was done with the river, or whether navigation was kept open or not, on the part of the city government and of the public generally. He saw Mayor Cregier go ahead with the construction of the Canal street bridge, an unmitigated fraud and outrage upon the marine interests. He saw the city give away to the Pennsylvania railroad a strip of land at Adams street of incalculable value to river navigation. He saw the Northern Pacific gobble up by a boodle ordinance another strip of the river. Then when Yerkes' northwestern elevated railroad wanted



Engineer E. D. Corthell, who is representing the Michigan Central Railroad in Washington, published a circular recently, which contained a picture showing the proposed bridge at Detroit and the capitol of the United States projected on the same scale. THE REVIEW prints this picture herewith, and in connection with it a picture showing two of the latest type of lake steamers (new Rockefeller ships) stretched across the channel.

city's financial and commercial life on behalf of the river is to be held. The marine has now more friends than its most ardent supporters ever dreamed of. By his one attack, Major Marshall has succeeded in doing the marine interest more service than could ordinarily have been done in a lifetime. Even those among marine men, who a few weeks ago believed that it was impossible to secure 20 feet of water in Chicago river, are now convinced that it must come by the commercial demands of the city, however much it may cost and at whatever inconvenience. Even the changing of many bridges and the lowering of tunnels at the city's expense, which must be done before a 20-foot channel can be made, have no terrors for the new-found friends of the river. The great trunk lines, like the Northwestern and Burlington, which now have terminals on Chicago river worth millions of dollars, are in the fore front of the fight against making Calumet river a 20-foot harbor, while the old river is neglected. Every paper in town has joined in the fight for the old harbor.

The few men in Chicago, like T. T. Morford, Hugh MacMillan, Capt. J. S. Dunham, E. J. Henry, J. C. Evans, George Harris, William Dickinson and others, who led the fight for the preservation of Chicago river in years past, suddenly find themselves lost in the host of new advocates of the cause. Among these new recruits, many of them leaders of the city's life in a commercial and financial way, there is a disposition manifest to punish Major Marshall for his temerity by asking the war department to assign him to some other post of duty. Such a movement will be most strenuously opposed by the old-time fighters for the river's cause. These men know what Major Marshall has done since they forced the general government to take control of Chicago river five years ago.

to place a center pier in the river at La Salle street, Major Marshall witnessed the entire city council, Marshall Field and other prominent citizens, and many marine men, joining in an appeal to the war department to allow the construction of the pier at a point where navigation would have been seriously menaced.

Was it surprising that he should have reported that the construction of a 20-foot channel in Chicago river, involving a vast expense on the part of the city and private individuals, was not feasible? Major Marshall's mistake in this was that he did not calculate upon the spirit of Chicago to remedy things when it gets started. This town never gets interested in any proposition until the last day, and then it raises a terrible row. When at fever heat it will accomplish in a week or month what might take other communities months and years to do. Instead of being criticized and hounded out of town, Major Marshall deserves the thanks of the marine interest of the lakes for raising this rumpus. The result will be that Chicago will stand fully pledged to the 20 foot channel, which will come as a matter of course in time. HOMER J. CARR.

Charles A. Funk, president of the Independent Fuel Co., Chicago, which operates the fuel dock managed by Capt. Tebo, in the Illinois Central slip, called on Cleveland vessel owners last week. Mr. Stanley B. Smith, the first fuel dealer to operate a pocket dock, now quite numerous around the lakes, was also in the city. Mr. W. C. Farrington of the Northern Steamship Co. was here arranging for the business of the passenger steamers. The big ships will stop at their Cleveland dock on both up and down-bound trips next season, and make the run from Cleveland to Buffalo by daylight.

Changes in Insurance Valuations.

When representatives of the different general agents who are engaged in hull insurance on the lakes met in Cleveland recently to revise the Inland Lloyd's Register, it was agreed among them that no information should be given out regarding changes in ratings or valuations of vessels in advance of the publication of the book. Some one in Milwaukee has, however, given out what is practically an entire list of the changes. Some ill-feeling may be stirred up among the underwriters, on account of this break in the agreement, but the list given out in Milwaukee is now public property and it is printed below with a few additions. Changes in values of steel vessels are due largely to the effort of the board to make the values uniform. Take, for instance, the case of the first vessel on the list, the Alva. Her value was placed last year at \$150,000, upon suggestion from the owner of the vessel, Mr. Bradley, who claimed he could duplicate her at that time for \$150,000, but as vessels of her kind could not be built now for \$150,000 her value has been raised. On the other hand it was found that steamers like the Penobscot and Yale, valued last year at \$225,000, were placed too high by mistake, and they have been reduced to \$215,000. Of the whaleback fleet, the steamer J. B. Trevor and the barges 117 and 118 are the only ones that have been changed. Values of all three of these have been increased. A reduction of \$25,000 each is made in the Northern line freight steamers. Some Milwaukee vessels were reduced last year upon request of owners on account of agitation in local tax matters. These have also been marked up, and it will thus be that there are various conditions attending the changes.

VALUATIONS INCREASED—STEAMERS.

	1896.	1895.		1896.	1895.
Alva.....	\$175,000	\$150,000	Maytham, Thomas.....	155,000	150,000
America.....	135,000	125,000	Mercur, Fred.....	55,000	50,000
Arundel.....	30,000	20,000	Merida.....	210,000	200,000
Brazil.....	135,000	130,000	Mitchell, Samuel.....	175,000	160,000
Briton.....	160,000	150,000	Mohawk.....	195,000	180,000
Brown, H. H.....	200,000	190,000	Murphy, S. P.....	115,000	110,000
City of Fremont.....	15,000	12,500	Nebraska.....	40,000	30,000
City of Rome.....	90,000	85,000	Nicholas.....	175,000	150,000
Clyde.....	65,000	60,000	Niko.....	55,000	50,000
Codorus.....	145,000	140,000	North Land.....	500,000	
Colby, J. L.....	125,000	120,000	North West.....	500,000	
Colgate, J. B.....	135,000	130,000	Ogemaw.....	25,000	22,000
Conemaugh.....	65,000	60,000	Orr, Arthur.....	190,000	175,000
Campbell, Colln.....	15,000	12,500	Owen, John.....	160,000	150,000
Cuba.....	75,000	70,000	Owego.....	190,000	175,000
City of Charlevoix.....	50,000	45,000	Pabst, Fred.....	110,000	95,000
Curry, S. S.....	210,000	200,000	Packer, H. E.....	50,000	50,000
Davidson, Thomas.....	95,000	85,000	Packer, R. A.....	35,000	30,000
Delaware.....	60,000	50,000	Pahlow, Louis.....	20,000	18,000
Dyer, George H.....	70,000	60,000	Palmer, Thomas W.....	160,000	150,000
Eddy, Selwyn.....	200,000	175,000	Pathfinder.....	175,000	165,000
Farwell, George.....	55,000	50,000	Peck, E. M.....	140,000	125,000
F. & P. M. No. 1.....	50,000	48,000	Phoenix.....	85,000	75,000
F. & P. M. No. 2.....	50,000	48,000	Pope, E. C.....	190,000	175,000
Flower, Roswell P.....	85,000	75,000	Pueblo.....	75,000	70,000
Ford, J. C.....	40,000	35,000	Sheboygan.....	25,000	20,000
Frost, Walter L.....	75,000	60,000	Samoa.....	60,000	55,000
Harlem.....	185,000	175,000	Saranac.....	190,000	175,000
Gilbert, W. H.....	190,000	160,000	Sawyer, Philetus.....	20,000	18,000
Globe.....	195,000	185,000	Schlesinger, F.....	120,000	105,000
Gratwick, W. H.....	190,000	175,000	Schuykill.....	145,000	140,000
Jewett, H. J.....	160,000	150,000	Spry, John.....	35,000	30,000
Juniata.....	60,000	55,000	Tioga.....	160,000	155,000
Kearsarge.....	210,000	175,000	Trevor, J. B.....	150,000	130,000
Keystone.....	15,000	12,000	Tuscarora.....	180,000	175,000
Langell, Simon.....	55,000	50,000	Vance, F. L.....	85,000	75,000
Livingstone.....	160,000	150,000	Vega.....	155,000	150,000
Lindsay, A. G.....	75,000	70,000	Wallula.....	70,000	65,000
McWilliams, J. J.....	215,000	175,000	Westover.....	20,000	15,000
Manchester.....	160,000	150,000	Wetmore, W. L.....	30,000	25,000
Marion.....	65,000	60,000	Wilber, E. P.....	185,000	175,000
Maryland.....	190,000	180,000	Wright, A. P.....	105,000	100,000
Mather, Samuel L.....	135,000	130,000	Yakima.....	85,000	80,000

VALUATIONS INCREASED—SCHOONERS.

	1896.	1895.		1896.	1895.
Adriatic.....	\$ 40,000	\$ 35,000	Our Son.....	20,000	18,000
Anderson, Alex.....	40,000	35,000	Owen, George B.....	40,000	38,000
Arenac.....	25,000	20,000	117 (pig).....	80,000	75,000
Edwards, J. R.....	15,000	12,000	118 (pig).....	80,000	75,000
Eleanor.....	10,000	8,000	Parker, T. L.....	23,000	20,000
Gawn, Thomas.....	15,000	12,500	Peshigo.....	35,000	27,000
Galatea.....	20,000	18,000	Scotia.....	25,000	18,000
Hutchinson, E. C.....	20,000	18,000	Sheldon, T. P.....	15,000	12,000
Harold.....	35,000	30,000	Sagamore.....	95,000	90,000
Johnson, C.....	4,000	3,500	San Diego.....	20,000	18,000
Law, Lizzie A.....	25,000	18,000	Wayne.....	22,000	20,000
Marsh, George A.....	4,000	3,000	Wilson, Mabel.....	43,000	40,000
Malta.....	120,000	100,000	Yukon.....	65,000	60,000
Marcia.....	120,000	100,000			

VALUATIONS DECREASED—STEAMERS.

	1896.	1895.		1896.	1895.
Algoma.....	\$ 15,000	\$ 18,000	Coffinberry, H. D.....	20 000	30,000
Allegheny.....	12,000	15 000	Colorado.....	25,000	35,000
Andaste.....	75,000	90,000	Cross, Belle P.....	12,000	15,000
Ann Arbor No. 1.....	100,000	120,000	Davis, C. H.....	7,000	8,000
Ann Arbor No. 2.....	100,000	120,000	Doty, L. N.....	115,000	120 000
Arcadia.....	10,000	12,000	Drake, M. M.....	35,000	40,000
Argo.....	65,000	70,000	Duluth.....	18,000	20,000
Argonaut.....	25,000	28,000	Dunbar Geo.....	6,000	7,500
Armstrong, Wm.....	5,000	7,500	Duncan, John.....	60,000	75,000
Arnold, B. W.....	48,000	50,000	Egyptian.....	30,000	35,000
Atlantis.....	4,000	6,000	Elien.....	10,000	15,000
Avon.....	30,000	40,000	Elphicke, C. W.....	90,000	95,000
Buell, F. R.....	55 000	60,000	Empire State.....	15,000	18,000
Buffalo.....	55,000	60,000	Fayette.....	10,000	12,000
Bulgaria.....	90,000	95,000	Fiske, James.....	30,000	35,000
Burnham, Geo.....	8,000	10,000	Forbes, Kittie M.....	40,000	46,000
Business.....	25,000	30,000	Foster, Parks.....	145,000	150,000
City of the Straits.....	70,000	80,000	Foster, I. N.....	6,000	8,000
City of Milwaukee.....	100,000	110,000	Fountain City.....	6,000	8,000
City of Toledo.....	75,000	100,000	Frontenac.....	150,000	160,000
Corona.....	10,000	12,500	Garden City.....	10,000	12,500
Cadillac.....	90,000	100,000	Gazelle.....	10,000	12,000
Chicago.....	65,000	70,000	Glenn.....	7,000	8,000
China.....	65,000	70,000	Gordon, R. J.....	5,000	8,000
City of Green Bay.....	4,000	5,000	Gould, E. F.....	5,000	7,000

	1896.	1895.		1896.	1895.
Gould, Jay.....	30,000	35,000	Owen, Ira H.....	140,000	150,000
Green, C. H.....	38,000	40,000	Parker, A. A.....	80,000	85,000
Grover, Maurice.....	90,000	95,000	Parnell, C. S.....	85,000	90,000
Hall, S. C.....	20,000	22,000	Penobscot.....	215,000	225,000
Hodge, S. F.....	25,000	30,000	Pentland.....	60,000	65,000
Holland, Robert.....	10,000	12,000	Pewaukee.....	5,000	6,000
Hurlbut, Chauncey.....	20,000	25,000	Pickands, H. S.....	25,000	30,000
Huron City.....	15,000	18,000	Pilgrim.....	12,000	15,000
India.....	65,000	70,000	Portage.....	30,000	40,000
Japan.....	65,000	70,000	Preston, Maud.....	4,500	6,000
Juliet.....	5,000	7,000	Quito.....	25,000	35,000
Ketcham, J. B.....	60,000	70,000	Raleigh.....	25,000	30,000
Ketcham, W. P.....	75,000	80,000	Ralph, P. J.....	55,000	60,000
Kirby, S. R.....	160,000	165,000	Rappahannock.....	130,000	145,000
Leland.....	12,500	15,000	Reitz, Chas.....	10,000	12,500
Lilly.....	7,000	8,000	Reynolds, S. C.....	140,000	150,000
Lora.....	20,000	25,000	Rugee, John.....	60,000	65,000
Loretta.....	12,000	14,000	Runnels, H. E.....	50,000	55,000
Mada ascar.....	75,000	80,000	St. Ignace.....	175,000	200,000
Madden, Lizzie.....	35,000	40,000	St. Louis.....	15,000	18,000
Majestic.....	95,000	100,000	St. Paul.....	20,000	35,000
Martin, S. K.....	16,000	18,000	Sacramento.....	130,000	145,000
Mecosta.....	85,000	90,000	Saginaw.....	10,000	12,000
Mills, Robert.....	95,000	100,000	Saginaw Valley.....	35,000	40,000
Monohansett.....	30,000	35,000	Sailor Boy.....	8,000	10,000
Mohegan.....	75,000	80,000	Sainte Marie.....	240,000	250,000
Montana.....	30,000	35,000	Seattle.....	15,000	18,000
Moore, John W.....	145,000	150,000	Shores, Adella.....	50,000	60,000
Moran, John V.....	65,000	70,000	Siberia.....	50,000	55,000
Nabant.....	25,000	30,000	Snook, T. W.....	6,000	7,500
Newsboy.....	9,000	10,000	State of Michigan.....	20,000	30,000
Nicaragua.....	75,000	80,000	Stevens, W. H.....	60,000	70,000
Nicol, John M.....	85,000	95,000	Superior.....	18,000	20,000
Northern Wave.....	150,000	175,000	Swain, Martin.....	12,500	15,000
Northern Light.....	150,000	175,000	Swallow.....	6,000	8,000
North Star.....	150,000	175,000	Tacoma.....	85,000	90,000
North Wind.....	150,000	175,000	Toledo.....	14,000	15,000
Northern King.....	150,000	175,000	Tower, C.....	85,000	95,000
Northern Queen.....	150,000	175,000	Tuttle, H. B.....	20,000	25,000
Nyanza.....	75,000	100,000	Vanderbilt.....	40,000	45,000
Olympia.....	95,000	100,000	Victory.....	215,000	220,000
Osceola.....	40,000	45,000	Yale.....	215,000	225,000
Ossifrage.....	20,000	25,000	Yuma.....	145,000	150,000
Otis, John.....	8,000	10,000	Zenith City.....	215,000	220,000

VALUATIONS DECREASED—SCHOONERS.

	1896.	1895.		1896.	1895.
Bliss, A. T.....	\$ 5,000	\$ 9,000	Knapp, F. M.....	6,000	8,000
Bloom, Nelson.....	5,000	6,500	Lake Forest.....	5,000	6,000
Barnes, Bertha.....	4,000	5,000	Locke, P. B.....	4,000	5,000
Bourke, Mary N.....	18,000	20,000	Luff, Sophia J.....	4,000	5,000
Butman, M.....	8,000	10,000	McLachlan, Mary.....	65,000	70,000
City of Chicago.....	4,500	6,000	Magill, C. J.....	4,000	5,000
Clara.....	4,500	6,000	Maria Martin.....	10,000	11,000
Constitution.....	4,000	6,000	Maxwell, E. B.....	9,000	10,000
Crosthwaite.....	10,000	12,000	Medora, Ada.....	4,000	5,000
Carney, Fred.....	7,500	10,000	Minch, C. P.....	9,000	10,000
Chicago Board of Trade.....	5,000	8,000	Miner, John.....	3,000	4,500
City of the Straits.....	3,000	4,500	Monguagon.....	4,000	4,500
Clement, S.....	2,500	4,000	Mystic Star.....	4,000	5,000
Colwell, Geo. L.....	5,000	7,000	Massasoit.....	15,000	18,000
Commodore.....	5,000	6,000	Masten, Jos. G.....	10,000	12,500
Corning, Ida.....	8,000	10,000	Northwest.....	28,000	30,000
Coyne, Emma L.....	5,000	7,000	Nester, Geo.....	18,000	20,000
Delaware.....	6,000	7,500	O'Neill, John.....	10,000	12,500
Doud, Reuben.....	4,000	5,000	Ogarita.....	12,000	15,000
Downing, M. T.....	4,000	5,000	Penokee.....	4,000	5,000
Anna Maria.....	4,000	4,500	Pomeroy.....	7,000	7,500
Dobbins, D. P.....	8,000	9,000	Planet.....	6,000	7,000
Ford River.....	7,000	8,000	Resumption.....	7,000	8,000
Flint, Sam.....	6,000	7,000	Rogers, A. J.....	3,500	4,500
Grandy, Wm.....	7,000	7,500	Sunrise.....	5,000	7,000
Goodman, W. O.....	9,000	10,000	Sweetheart.....	9,000	10,000
Hammond, L. S.....	4,000	5,000	Sherman, W. A.....	10,000	12,000
Homer.....	6,000	7,000	Three Brothers.....	4,000	5,000
Hattie.....	4,500	5,500	Unadilla.....	5,000	6,000
Ishpeming.....	5,000	6,000	Wilbur, J. B.....	5,000	6,000
Keith, Ida.....	8,000	9,000	Winslow, Richard.....	16,000	18,000
Kelley, Edward.....	15,000	18,000	Wallace, David.....	30,000	38,000
Kitchen, J. B.....	3,500	5,000	Wilson, Anabel.....	15,000	16,000
King, C. G.....	5,000	6,000			

Other reductions on small low grade vessels are as follows:

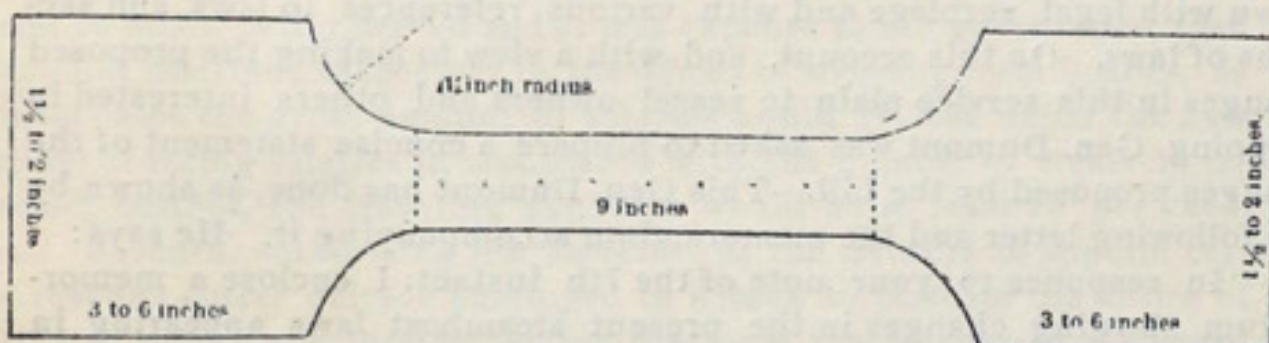
From \$4,000 to \$3,500—Schooners Bolivia, City of Sheboygan, Groton, Granger, Hoboken, S. A. Wood and Monitor.

From \$4,000 to \$3,000—Schooners D. S. Austin, M. D. Ayer, Atmosphere, Active, Advance, Alert, H. P. Baldwin, E. P. Beals, Boscobel, Butcher Boy, Kate Darley, Exile, Gracie M. Filer, Anna P. Glover, T. H. Howland, J. V. Jones, Mary Lyon, Jennie Matthews, Mediator, M. I. Wilcox.

New Rules Regarding Material for Marine Boilers.

The REVIEW is in receipt of an advance copy of a circular from the steamboat inspection service, Washington, giving changes made in the rules of the service, at the annual meeting of the supervising inspectors in January last. Changes, excepting those relating to material for steam boilers, are few in number and not important. The board has, however, made an important addition to Rule 1, which relates to marine boiler material. A new paragraph in Sec. 3 of this rule is as follows:

"To ascertain the tensile strength and other qualities of steel plate, there shall be taken from each sheet to be used in shell or other parts of boiler which are subject to tensile strain, a test piece prepared in form according to the following diagram.



"The straight part in center shall be 9 inches in length and 1 inch in width, marked with light prick punch marks at distances 1 inch apart, as shown, spaced so as to give 8 inches in length.

"The sample must show, when tested, an elongation of at least 25 per cent. in a length of two inches, for thickness up to $\frac{1}{4}$ inch, inclusive; and in a length of 4 inches, for over $\frac{1}{4}$ to $\frac{1}{2}$ inch, inclusive; in a length of 8 inches, for over $\frac{1}{2}$ to 1 inch, inclusive; and in a length of 6 inches, for all thickness over 1 inch.

"The reduction of area shall be the same as called for by the rules of the board. No plate shall contain more than .06 per cent. of phosphorus, and .04 per cent. of sulphur, to be determined by analysis by the manufacturers, verified by them, and copy furnished the inspector for each order tested; which analysis shall, if deemed expedient by the supervising inspector-general, be verified by an outside test at the expense of the manufacturer of the plate.

"It being further provided that said manufacturer shall also furnish a certificate with each order of steel to be tested, stating the technical process by which said steel was manufactured. It being further provided that steel manufactured by what is known as the Bessemer process shall not be allowed to be used in the construction of marine boilers. Plates over 1 inch in thickness may be reduced to 1 inch in the straight part for testing, in cases where the testing apparatus is not of sufficient capacity to test the full thickness of plate. The reduction of area and elongation must be equal to the requirement of full thickness of metal.

"Provided, however, that where contracts for boilers for ocean-going steamers require a test of material in compliance with the British board of trade, British Lloyds, or Bureau Veritas rules for testing, the inspectors shall make the tests in compliance with the above rules. The samples shall also be capable of being bent to a curve of which the inner radius is not greater than one and a half times the thickness of the plates after having been heated uniformly to a low cherry red, and quenched in water of 82 degrees Fahrenheit. Such tests are to be made at the place of manufacture of the material, by a local or assistant inspector of the district in which such material is to be used, whenever possible. If, however, from distance or other sufficient reason, the inspectors of the district are unable to make such tests, the supervising inspector-general may direct a local or assistant inspector from another district to make them. In every case, however, the inspector making the tests shall stamp the initials of his name above the manufacturer's stamp on the plates, and also the letters 'U. S. I.' with the initials or abbreviated signs of the name of the port to which the inspector making the tests belongs.

"Provided, always, that the plate possesses homogeneousness, toughness, and ability to withstand the effect of repeated heating and cooling; but should these tests prove any plate to be overstamped, such plate must be rejected as failing to have the strength stamped thereon. But nothing herein shall be so construed as to prevent the manufacturer from restamping such plate and all other plates in the lot at the lowest tensile strength indicated by the deficient sample, provided such restamping is done previous to the use of the plates in the manufacture of marine boilers. When more than one sample shall be tested from one sheet, the sample showing the lowest tensile strength shall be allowed as the tensile strength of the plate. These amendments shall take effect on and after July 1, 1896."

The board has also added a paragraph to Sec. 9 of Rule 2, providing that tubes, water pipes, and steam pipes, made of steel manufactured by the Bessemer process, shall not be allowed to be used in any marine boiler built from and after July 1, 1896; nor shall any tube increased in thickness by welding one tube inside of another be allowed for use after the same date.

An amendment relating to furnace flues is also of some importance.

This matter is dealt with in the third paragraph of Sec. 14, Rule 2, which has been amended so as to read as follows:

"The strength of ribbed flues, when used for furnaces or steam chimneys (rib projections not less than $1\frac{3}{8}$ inches deep), and not more than 9 inches from center to center of ribs, and provided that the plain parts at ends do not exceed 9 inches, and constructed of plates not less than $\frac{7}{16}$ inch thick, with practically true circle; and the strength of corrugated flue when used for furnace or chimney, corrugated by sections with flanged ends overlapping each other and riveted with $\frac{3}{4}$ -inch rivets, 2-inch pitch, corrugated projection not less than $2\frac{1}{2}$ inches from inside of flue to outside of lap, and not more than 18 inches between centers of corrugation, provided plain parts at ends do not exceed 12 inches in length, constructed of plates not less than $\frac{7}{16}$ inch thick, with practically true circles; and the strength of ribbed flues when used for furnaces or steam chimneys, when made in sections of not less than 12 inches in length, measuring from center to center of said projections, and flanged to a depth not exceeding $2\frac{1}{2}$ inches, and substantially riveted together with wrought-iron rings between such flanges, and such rings have a thickness of not less than double the thickness of the material in the flue and a depth of not less than $2\frac{1}{2}$ inches, when straight ends do not exceed 12 inches in length, shall, in each of the above cases, be calculated from the following formula: $C = 14,000$, a constant; T = thickness of flue in decimals of an inch; D = diameter of flue in inches; P = pressure of steam allowable.

$$\text{Formula: } P = \frac{C \times T}{D}$$

Devices Approved by the Steamboat Inspectors.

From proofs of the official report of proceedings of the last annual meeting of the United States supervising inspectors of steam vessels, just at hand, it is learned that the following devices were approved by the board and have also received the approval of the secretary of the treasury: Reliance metallic life raft, presented by L. H. Raymond; Lunkenheimer improved pop safety valve. The board approved coil and pipe boilers presented by the following named persons and firms, when such boilers are constructed in all their parts of wrought iron, steel, or cast steel, in the manner as provided in the general rules of the board: C. R. Benton, Vergennes, Vt.; Baylies C. Clark, New York; J. F. Craig, Toledo, O.; Craig water tube boilers, Nos. 1 and 2; E. N. Drouillard, Wyandotte, Mich.; Drouillard water tube boiler, No. 1; A. W. Finlayson, Detroit; T. W. Godwin & Co., Norfolk, Va.; Samuel M. Gray, Providence, R. I.; Wm. H. Herbertson, Cadawader, Pa.; L. W. Loomis, Carrollton, Ill.; Wm. H. C. Lyons, Philadelphia; John Mohr & Sons, Chicago; Wm. Oldman, Jr., Buffalo, horizontal and vertical boilers; Geo. E. and Chas. A. Painter, Pittsburg; Wm. E. Plummer, Jr., Buffalo; Joseph Provencher, E. Providence, R. I.; J. B. Rives, St. Paul, waterous boiler; Rochester Machine Tool Works, Rochester, N. Y., Buckley patent water tube pipe boiler; Isaac E. Shepardson, Providence, R. I.; R. Weston & A. M. Lemke, Saginaw, Mich.; Geo. L. Whittington, Sea Isle City, N. J.; Chas. P. Willard, Chicago.

Stocks of Grain at Lake Ports.

The following table, prepared from reports of the Chicago board of trade, shows the stocks of wheat and corn in store at the principal points of accumulation on the lakes on March 7, 1896:

	Wheat, bushels.	Corn, bushels.
Chicago.....	19,832,000	4,386,000
Duluth.....	11,734,000	113,000
Milwaukee.....	418,000	2,000
Detroit.....	301,000	58,000
Toledo.....	722,000	806,000
Buffalo.....	1,618,000	89,000
Total.....	34,625,000	5,454,000

As compared with a week ago, the above figures show at the several points named a decrease of 42,000 bushels of wheat and an increase of 564,000 bushels of corn.

On March 7, there was afloat at Chicago 349,000 bushels of wheat, 5,138,000 bushels of corn and 832,000 bushels of oats; at Buffalo, 259,000 bushels of wheat, 223,000 bushels of oats and 250,000 bushels of barley; at Duluth, 512,000 bushels of wheat; and at Milwaukee 176,000 bushels of wheat and 120,000 bushels of oats.

The solid through trains of the Nickel Plate road, equipped with all modern appliances for safety, speed, and comfort, are the prominent feature of that popular line. Their fast eastern express, leaving Chicago at 1:30 p. m. daily, runs through solid to New York City, arriving at that point at 6:30 p. m. the next evening. Experience is the best teacher. After you experience a trip on this train, we are confident of your future patronage.

19-Mar. 31.

SUBSCRIBERS WILL AVOID DANGER OF MISTAKES BY GIVING THE OLD AS WELL AS THE NEW ADDRESS WHEN A CHANGE IS DESIRED.



DEVOTED TO THE LAKE MARINE AND KINDRED INTERESTS.

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ON ACCOUNT of a change in duty, which makes his continuance in office no longer practicable, Washington L. Capps, U.S.N., has been compelled to resign the office of secretary-treasurer of the Society of Naval Architects and Marine Engineers. The council of the society has elected Francis T. Bowles, U.S.N., to succeed Mr. Capps. Mr. Bowles' address is 12 West Thirty-first Street, New York. Mr. Capps has made an excellent and obliging official of the society, and the members will hear of his retirement with regret. Mr. Bowles has also been a very active member, however, and is in every way fitted for the position.

GEN. MANAGER WHEELER of the Cleveland Steel Canal Boat Co. has thought of offering members of the Cleveland Chamber of Commerce a grand pic-nic, in the form of a free for all excursion on one of the canal boat tows from Cleveland to New York. He suggests that the boats might be fitted up for one trip so as to afford temporary sleeping quarters. Everybody undertaking the trip might be expected to rough it, and such of the members as are bicycle riders could find exercise part of the time on the tow-path, thus lessening to a small degree the labor of the mules. The idea would be to further advertise Cleveland by means of the canal boats.

Now that Representative Burton's bill providing for a patrol of the St. Mary's river is practically a law, vessel masters should afford all possible assistance to Mr. C. F. Shoemaker, chief of the revenue cutter service, in framing rules that will be just to all vessels navigating the river. The difficulty attending the starting of vessels down the river from below the lock each morning should receive attention. This feature of the subject is referred to in a communication from Capt. James Stone of Cleveland in the REVIEW of Feb. 6, 1896.

A STATEMENT from the Insurance Company of North America, which is represented on the lakes by Geo. L. McCurdy of Chicago, shows assets aggregating in cash value \$9,487,673.53. Liabilities are: Capital, \$3,000,000.00; reserve for reinsurance, unsettled losses and all other claims, \$4,465,657.04; surplus over all liabilities, \$2,022,016.49; total, \$9,487,673.53. The surplus as regards policy holders is \$5,022,016.49.

A CIRCULAR from the secretary of the Buffalo Lumber Exchange announces that prices for unloading lumber and methods governing the work during the coming season will be the same as last year. The whole matter is, however, subject to change in the fall.

Ship Yard Matters.

It is probable that improvements now being made in the ship yard of F. W. Wheeler & Co., West Bay City, will cost \$70,000. Several lake vessel owners, who have visited Newport News recently, say that there is no question of the West Bay City plant being far superior to the big Huntington works when it is completed, and Wheeler & Co. will thus have shortly the finest ship yard in America, capable of putting down at one time seven ships, each of full 400 feet keel.

The steamer Britannic is in Dunford & Alverson's dock, Port Huron. Martin Lester of Marine City has the contract to rebuild her. He will take her to Marine City to finish repairs after the dock work is done with. Frank Cadotte of Marine City, who will be chief engineer of the Britannic during the coming season, has five engineers engaged on the repairs of her machinery.

The first of the New London Steamboat Co.'s steamers building at Chester, Pa., and which were designed by Frank E. Kirby of Detroit, was successfully launched a few days ago, after some delay caused by difficulty with the ways. The second steamer will be launched next month. These two new ships, as well as the new steamer which the Chester company is to build for the Maine Steamship Co., will be classed by the United States Standard Register of Shipping, New York.

The new Whitney steamer that is being built by Wheeler & Co. at West Bay City, will be named E. W. Oglebay, in honor of the senior member of the firm of Oglebay, Norton & Co., Cleveland, and the steel tug which the Cleveland Ship Building Co. is building for the Duluth & Iron Range Railway will be named Edna G.

Proposed Changes in Steamboat Laws.

A SUMMARY OF MATTERS CONTAINED IN SENATOR FRYE'S BILL—LARGELY A CODIFICATION OF LAWS RELATING TO INSPECTION.

As noted in the last issue of the REVIEW, Senator Wm. P. Frye, chairman of the senate committee on commerce, has introduced a bill (S. 2,162), which proposes certain changes in the laws governing the steamboat inspection service. The bill has been referred to the senate committee on commerce and will probably not leave that committee until it has been very carefully considered. Senator Frye, in a letter printed last week, informed the REVIEW that this bill was, upon his suggestion, prepared mainly by Gen. James A. Dumont, the present head of the steamboat inspection service. The measure itself is, of necessity, loaded down with legal verbiage and with various references to laws and sections of laws. On this account, and with a view to making the proposed changes in this service plain to vessel owners and others interested in shipping, Gen. Dumont was asked to prepare a concise statement of the changes proposed by the bill. This Gen. Dumont has done, as shown by the following letter and the memorandum accompanying it. He says:

"In response to your note of the 7th instant, I enclose a memorandum showing changes in the present steamboat laws appearing in Senate Bill 2,162, referred to in your note. One of the main objects of the bill is to codify, as the title indicates, all existing laws pertaining to steamboat inspection. I think there have been at least twenty-one amendments to the steamboat law approved Feb. 28, 1871, consequently any person wishing to refer to such law has to hunt up in the different volumes of the statutes-at-large, all these amendments to make a complete law on the subject. I think no one can find fault with Senate Bill 2,162 so far as the mere codification of existing laws is concerned. Other amendments in the bill are the results of twenty years observation of the necessities of the case, and every one of them has at some time or other been made the subject of remark in the annual reports from this office. Of course the forms of construction of these amendments are tentative only, and open to your criticism and suggestions, which will be kindly received and considered by this office. The synopsis inclosed is not as full as I would like to make it, but have had to prepare it hastily, and to go into further details would make it more lengthy than you would probably desire. I send you under separate cover also a copy of my annual report for 1895."

MEMORANDUM EXPLAINING PROPOSED BILL AMENDING AND CODIFYING VARIOUS SECTIONS OF TITLE LII, REVISED STATUTES, AS AMENDED BY THE SEVERAL ACTS OF CONGRESS SINCE APRIL 17, 1874.

Section 4,400. Amendment providing reciprocal acceptance of certificates of inspection of the merchant passenger steamers of foreign nations.

Section 4,402. Amendment increasing salary of supervising inspector-general, and appointing an assistant to the supervising inspector-general, and stating the qualifications required of such officers. (See page 15, annual report of supervising inspector-general for 1895. The work of the office has increased 160 per cent. under the present incumbent, who is the only bureau officer in the treasury who has no assistant competent by law to perform the chief's duties when absent from sickness or other cause.)

Section 4,404. Amendment changing the time of meeting of the board of supervising inspectors from a fixed time to a time that shall be recommended by the supervising inspector-general, and giving the authority to the secretary of the treasury to assign the jurisdiction of the various supervising inspectors. The present time of meeting of the board, in midwinter, prevents practical trials of life saving appliances presented for approval.

Section 4,407. Amendment retaining in office local and assistant inspectors during good behavior. (See page 13, annual report for 1895.)

Section 4,410. Amendment changing date of supervising inspectors' annual reports from calendar year to fiscal year, so as to conform to the date of all other department reports, and providing for printing the board's journal. (See page 15, annual report, 1895.) Cut off by an act of congress, 1895.

Section 4,411. Amendment authorizing the printing of list of names of licensed officers—same as above.

Section 4,414. Amendment. First, changing names of local inspection districts to conform to the legal names of the collection districts to which they are appointed. Second, creating additional inspection districts, namely, at Brooklyn, N. Y., Newburg, N. Y., Jersey City, N. J.; an additional inspection district in the collection district of Wisconsin, to be located at Green Bay, Wis.; an additional inspection district in the collection district of Michigan, to be located at Manistee, Mich.; and new inspection districts created in the collection district of Miami, O. (Tolledo); Oswegatchie, N. Y. (Ogdensburg, N. Y.); Teche, La. (Brashear City); Perth Amboy, N. J.; Erie, Pa.; St. Paul, Minn.; and Washington, D. C. Third, fixing the pay of inspectors at \$1,500 per annum, who inspect annually seventy-five steamers and less than 150. (See page 10, annual report, 1895; page 72, manual.) Act approved March 1, 1895. Fourth, in-

creasing the pay of assistant inspectors in districts inspecting upward of 300 and 400 steamers annually. Fifth, specifying when additional clerks to local boards may be appointed, and when an additional clerk may be classed as chief clerk, with an increased salary. Sixth, authorizing secretary of the treasury to create additional inspection districts under certain conditions. Reasons set forth in annual report of supervising inspector-general, 1895, page 12, as follows: "I would suggest a still further amendment to said laws giving the secretary of the treasury power to create additional boards of local inspectors at contiguous customs inspection districts, or by dividing any collection district whenever the work of an existing board becomes so large as to authorize, under the law as amended March 1, 1895, the services of assistant inspectors. Were the laws so amended, then the public as well as vessel owners' interests would be much better served and at less expense to the government than to appoint assistant inspectors in the offices of existing local boards, as in most cases the gross amount of salaries would be less under the new method of rating salaries in accordance with the number of steamers inspected; besides, the traveling expenses would be at least 25 per cent. less." Seventh, authorizing the secretary of the treasury to appoint certain revenue cutter officers employed in Alaska to perform the duties of boards of local inspectors, to inspect steamers inaccessible to the board of local inspectors at Seattle, there being about twenty such steamers running without inspection.

Section 4,415. First amendment changes the method of designating local inspectors, making the supervising inspector the sole designator, instead of in conjunction with the judge of the district court and the collector of customs, as by the present method there are frequent deadlocks keeping the vacancies open sometimes for months. Second amendment requires such selections to be non-partisan.

Section 4,416. Amendment embracing all inspectors in certain prohibitions, instead of confining such prohibitions to the appointment of supervising and local inspectors. Under the present law the supervising inspector-general and assistant inspectors are not subject to its provisions.

Section 4,417. Eliminating obsolete matter heretofore changed by various amendments, and making provisions for the inspection of foreign-built steamers admitted to American registry.

Section 4,419. Amendment eliminating obsolete matter only

Section 4,426. Amendment compelling vessels propelled by machinery other than steam power to observe the inspection laws and above 15 tons to be inspected and carry a licensed pilot and engineer.

Section 4,427. Amendment codifying original laws, and subsequent amendments relating to towing vessels, there being now no statute laws on this subject for inland waters other than the great lakes.

Section 4,431. Amendment requiring chemical test of marine boiler plate, and permitting board to limit the making of steel boiler plate to certain processes, this for the purpose of keeping up with modern improvements in manufacture, without having to go to congress for a change of the laws in order to do so.

Section 4,433. Amendment giving the board of supervising inspectors more discretion in the matter of regulating boiler pressures, in relation to riveting and tensile strength of boiler plate. Same reason as above.

Section 4,438. Amendment requiring second and third mates of ocean steamers to be licensed, as well as chief mates, also authorizing the licensing of masters and mates of sailing vessels.

Section 4,440. Amendment giving qualifications required of masters and mates of sail vessels.

Section 4,445. First, amendment requiring all masters, mates, engineers and pilots of steam vessels to take oath that they are American citizens. Second, providing penalties for false swearing before local inspectors. Third, providing conditions under which officers of steam vessels may be drafted in time of war.

Section 4,447. Authorizing certificates of service to be given licensed officers serving outside the jurisdiction of the United States.

Section 4,451. Amendment codifying to conform to change authorized by act approved April 4, 1888, relating to appropriation, expenses steamboat inspection service.

Section 4,458. Amendment repealing, as it is obsolete. Authorized collection of fees for inspection of steamers and licensing officers.

Section 4,461. Amendment, caused by repeal of section 4,458, to conform to subsequent legislation approved June 19, 1886. Further specifications as to appropriations.

Section 4,462. Amendment granting thirty days annual leave to inspectors, clerks and employes, the solicitor of the treasury having decided that no authority for such leave now exists.

Section 4,463. Amendment requiring inspectors to insert in certificates of inspection the number of officers and crew required on passenger steamers, this to stop the frequent complaints that certain steamers are not properly officered; simply legalizes exacting practice.

Section 4,464. Amendment including ferryboats running on routes

of over five miles, in provisions of sections relating to limiting number of passengers steamers may lawfully carry; to prevent ferry steamers carrying unlimited number of passengers on excursion routes, under nominal ferry license, the steamers only running during the excursion season.

Section 4,472. Amended to allow the use of high grade (300°) petroleum as stores; to legalize a universal practice, and to limit such practice to the use of oil that is not dangerous.

Section 4,483. Amended to make provision for steamers under 100 tons, in the matter of buckets, axes, etc. Second, requiring donkey boiler on certain steamers. Under present law, as sometimes construed, all steamers, regardless of size, under 200 tons, have to carry the same number of equipments referred to.

Section 4,487. Amendment, verbal only.

Section 4,488. Codification, namely, original law and amendments thereto now existing; also eliminating what has proved heretofore impractical, namely, a boat detaching apparatus that can safely allow a boat to be launched while a steamer is under speed. (Acts March 2, 1883, and April 11, 1892, relating to line-carrying projectiles). And providing that one-quarter life-boats and rafts may be dispensed with, when fitted with certain water-tight compartments.

Section 4,489. Codification of section with respect to making owner of steamer liable to penalty for not carrying "line-carrying projectiles and the means of propelling them" required, the words quoted being a recent amendment to the section. Act approved April 11, 1892.

Section 4,490. Amended. First, to make the law in regard to bulkheads in passenger steamers conform somewhat to more modern practice. Second, to codify original law to conform to amendments enacted since revised statutes 1874-1878 were adopted. (See Sec 3, act July 9, 1886, relating to harbor steamers going fifteen miles to sea, or on the lakes 15 miles from entrance to harbors; page 34, manual).

Another Sault River Fuel Dock.

The steamboat fueling concerns of Cleveland seem to be undertaking improvements on quite an extensive scale for next season. It is understood that the Cuddy-Mullen Coal Co. has interested a number of leading vessel owners in a stock company, which will be known as the Vessel Owners' Fuel Co., and one of its first steps will be to build a fuel dock on the Sault river, in the vicinity of Detour, which it is hoped will be ready upon the opening of navigation to Lake Superior. The Cuddy-Mullen company has already taken over Mr. W. H. Gatfield's interest in the Mullen & Gatfield Coal Co.'s docks at Amherstburg and Sandwich on the Detroit river, and has let contracts for additional pockets for the Sandwich dock and for another steam hoisting derrick. These new interests, taken in connection with the car dumping machine that is being erected for this company in the outer harbor at Cleveland, and which will be completed this month, will certainly give this concern a strong hold on a large part of the lake coal business.

Around the Lakes.

The steamer Penobscot, one of the best steel ships as yet built by F. W. Wheeler & Co., has loaded 245,000 bushels of oats at Chicago.

In an advertisement elsewhere in this issue, the steamer V. Swain, which was badly damaged by fire some time ago, is offered for sale.

W. P. McKemey, for the past two seasons in the steamer C. B. Lockwood, will next season be engaged as steward of the steel steamer Republic.

The Canadian barge which has been known as City of Owen Sound will, in accordance with an official act of the dominion government, hereafter be known by the name Saturn.

An appropriation of \$3,500 is assured for the Detroit marine post office for the coming year, and Congressman Corliss of the Detroit district is trying to increase the amount to \$5,000.

A new life saving station will be opened at Plum island, entrance to Green bay. Inger Olson, who attained distinction with the Milwaukee crew, has been appointed keeper of the new station.

The Cleveland Dredge Co., in which W. A. Collier and C. E. Grover of the Vessel Owners' Towing Co., Cleveland, are the principal stockholders, now has two dredges. They have purchased the dredge which the Pennsylvania Co. has been operating for some time past at Ashtabula.

Why not patronize the Nickel Plate road on your next trip to New York City or Boston? They operate solid through trains, elegantly equipped with palace sleepers and fine day coaches, attended by uniformed colored porters whose duties require them to look out for the comfort of passengers; magnificent dining cars. The popular low-rate short line.

21-Mar. 31.

"ROPER'S LAND AND MARINE ENGINES," BOUND IN MOROCCO WITH FLAP AND POCKET, WILL BE MAILED TO ANY ADDRESS FOR \$3.50 SENT TO THE MARINE REVIEW, CLEVELAND, O.

Capt. C. H. Weeks.



The portrait appearing herewith will be recognized as that of Capt. C. H. Weeks, secretary of one of the lodges of the Ship Masters' Association. He announces his intention of opening up a vessel and insurance agency at Duluth in the spring.

Properly Lubricated.

The smashing of the crank and shaft of the City of Paris was fresh in the minds of the public as well as that of every steamship engineer on the seas. A double lookout was kept up, and every vessel was provided with additional oilers, so that lubrication certainly could not be at fault in case anything happened. On the vessel in question several prominent passengers obtained permission to inspect the machinery from the deck balcony to the holes of the stokers. One was a man from Chicago, who had studied ventriloquism and had achieved some eminence in it. He was in for fun and he got it. While he was down on the landing termed "first 'tween decks" he conceived the idea that the machinery, particularly the cranks, needed oiling, and, throwing his voice in that direction, he suddenly sent up a most demoniac shriek, which sent a thrill of alarm into the heart of every assistant engineer and oiler from the cylinder heads to the shaft. A scene of terrible excitement followed. Suddenly one of the oilers, the most intelligent of the lot, grew interested in this spectator, and, creeping up behind him, placed his ear close to his back. Then he quietly took the oil can, filled it to the brim, mounted the iron steps to the first landing above, and then unscrewing the top of the can, he poured a perfect cataract of oil down upon the joker.

"See here, you blundering fool! What are you about?" yelled the discomfited ventriloquist.

"Only oiling a squeaking crank," responded the oiler, grinning so that he was parting his face in two in the middle. "I'm up to those tricks myself."

In General.

Two schooners are being built at the ship yard at Westerly, R.I., and a tug is building at New London, Conn., for the Thames Tow Boat Co. Small schooners are also under way in the Davidson yard at New London, Conn., and at Palmer's yard in Noank, Conn.

A report on ship building in Germany in 1895 shows that 101,402 registered tons of shipping were built, as compared with 117,621 tons in 1894. The report does not include ships built in government yards, but does embrace war ships built in private yards.

Now that Mr. Burton's bill giving the secretary of the treasury power to regulate traffic in St. Mary's river has passed both houses of congress and awaits only the signature of the president, it will be well for lake vessel masters to take up immediately with the secretary of the treasury the matter of framing regulations that will be satisfactory to vessels of all kinds trading to Lake Superior. Capt. Davis of the revenue cutter Johnson, Milwaukee, will probably be entrusted with the work of consulting vessel owners regarding these rules before they are passed upon by the secretary of the treasury.

Major Sears, who is in charge of river and harbor work at the head of Lake Superior, and who last year secured a complete record of the commerce of Duluth and Superior, by demanding reports of cargoes from all vessels arriving and clearing, under the law relating to statistics where river or harbor work is being carried on, says of the advisability of applying the same law to vessels passing through the Detroit

river: "If an accurate report of the commerce passing annually through the Detroit river were taken, the same as the law now requires shall be taken at the head of the lakes, the information would be of great value. It would be interesting to compare the result with the traffic the railroads would send across the river over the bridge which the railroad interest desire permission to build. The disparity of the latter would be so great that arguments would be unnecessary."

Trade Notes.

The Thompson tug line has leased the McMorran coal dock with a supply of 2,000 tons at Port Huron, and will be in position to fuel steamers at that port upon the opening of navigation.

Capt. W. C. Richardson, vessel owner of Cleveland, says in a letter of recent date to H. G. Trout, Buffalo: "The wheel furnished by you for our steamer Roumania is all right in every respect. She tows her consort one mile an hour faster with your wheel than with any of the other wheels we ever had on her, and when other vessels of ours need new wheels we shall certainly give the order to you."

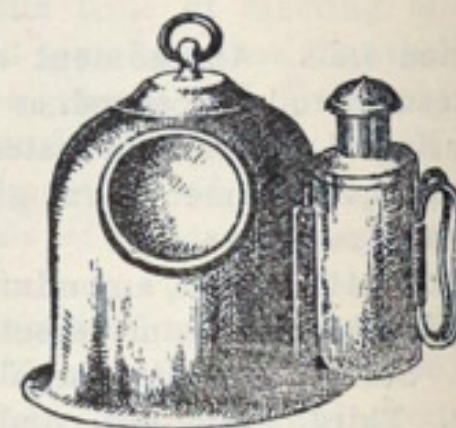
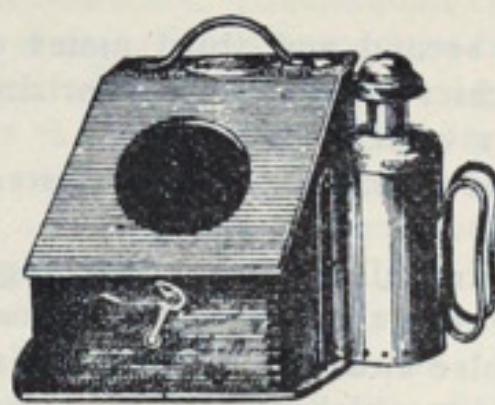
The Jos. Dixon Crucible Co. has opened an office at 1315 Monadnock block, Chicago, which is in charge of Mr. F. W. Musson, and have added to their office force Mr. W. C. Mahaney, formerly western manager of the American Machinist. Mr. F. W. Musson will control the lead pencil business of the west and Mr. Mahaney will look after their interests in the lubricating and paint departments. Just now, with the spring season of painting at hand, this company is directing attention to the value of Dixon's silica graphite paint.

The navy department has ordered of the Bethlehem Iron Co. 100 shield plates for six-pounder rifles. This is the result of the competition which has been going on among the steel manufacturers of the country, samples of whose product have been tested at the Indian Head proving grounds. The plates which gave the best results were those of the Bethlehem company, which are harveyed nickel steel, the percentage of nickel in the material being quite high. It is believed by the experts that this alloy is better ballistically than chrome or any of the other combinations which were presented for test.

In consequence of the death of Gen. J. B. Carr, the firm of J. B. Carr & Co., Troy, N. Y., has been incorporated under the name of The J. B. Carr Co., the incorporators being Mrs. J. B. Carr, William Kemp, William Kemp, Jr., Frederick B. Jillson, and Eli Hancox. The last named has been superintendent of the works since it was started in 1865. It is the purpose of the new company to maintain the past reputation of J. B. Carr & Co. in making only the best and highest grade of cable, shipping, crane, dredge, quarry and rafting chains. They will manufacture in three qualities, made from American refined iron, "Burden's H. B. & I." and "Burden's Best Best" iron. They formerly designated their chains as "B. B. B. and B. B. B.", but on account of other makers using these letters they will hereafter specify the irons used.

Baby Binnacle and Compass.

T. S. & J. D. Negus, No. 40 Water street, New York, are offering yachtsmen something very cute in a small binnacle and compass. The



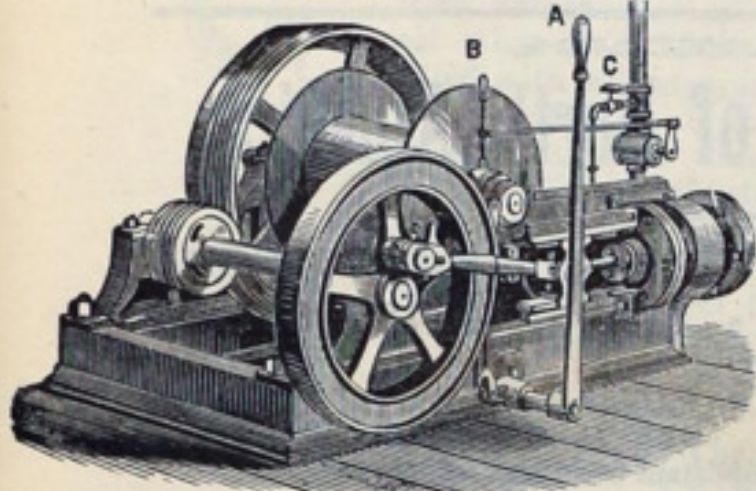
wooden binnacle, fitted with a lamp, as illustrated, is only \$5, and the brass binnacle \$7. A reliable liquid compass to fit either is \$8. The compass has a card 2 inches in diameter and is steady and perfect. It will take the place of the small dry compass.

Capt. W. E. Rice, owner and manager of the steamer Rhoda Stewart, writes as follows: "Your letter making inquiry regarding the forced draft apparatus of the B. F. Sturtevant Co. is at hand, and in reply will say I have been using one of their machines on my steamer for three seasons, and I am well satisfied with the results obtained. Previous to adopting this system of draft, I was obliged to purchase only the best of lump coal, in order to obtain the proper amount of steam, and then only with first class firemen. Now I use only the cheaper grades of fuel, and anyone can do the firing. The only care necessary is on the part of the engineer, in not allowing the firemen to crowd the fires, and running the machine too fast. Last season we had firemen who had never fired on steamers before. The saving on my fuel bills for the time I have used the machine is more than 20 per cent., to say nothing of other benefits."



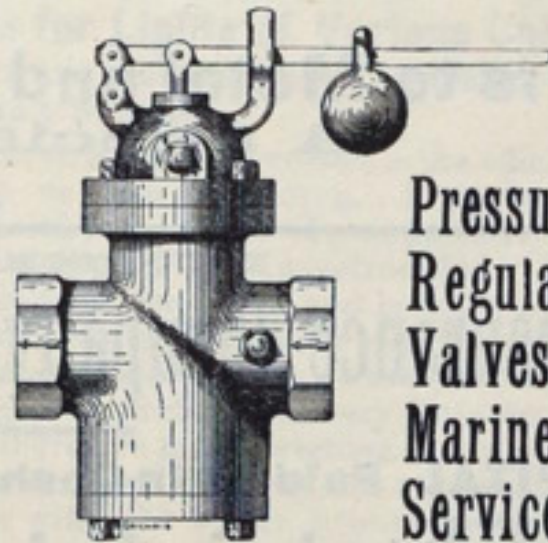
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With either Frictional, Spur or Worm Gear of various Patterns to suit all purposes.



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situated in Wisconsin, 110 miles north of Chicago, on the West Shore of Lake Michigan, with 148 Acres of Stone Land, including one mile of Lake Front with an abundance of the best Lake Sand. Stone can be utilized as Flux, Crushed, Rip-Rap and Building Stone; makes a first-class lime. Special attention is called to the transportation by water, which places this quarry in a position to beat all competitors for business in all lake towns.

Plant might be leased.

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Steamer **SCHOOLCRAFT.**

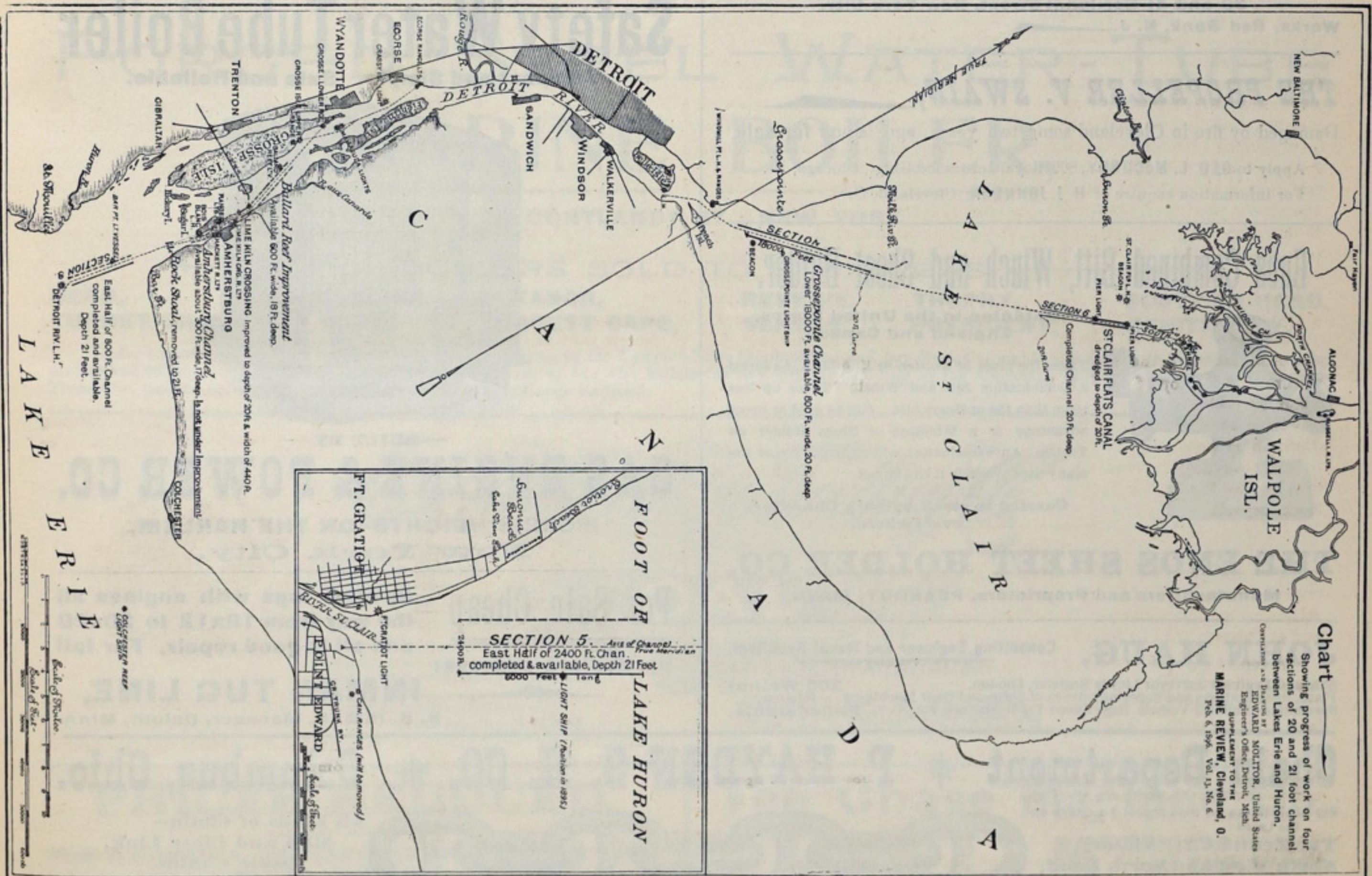
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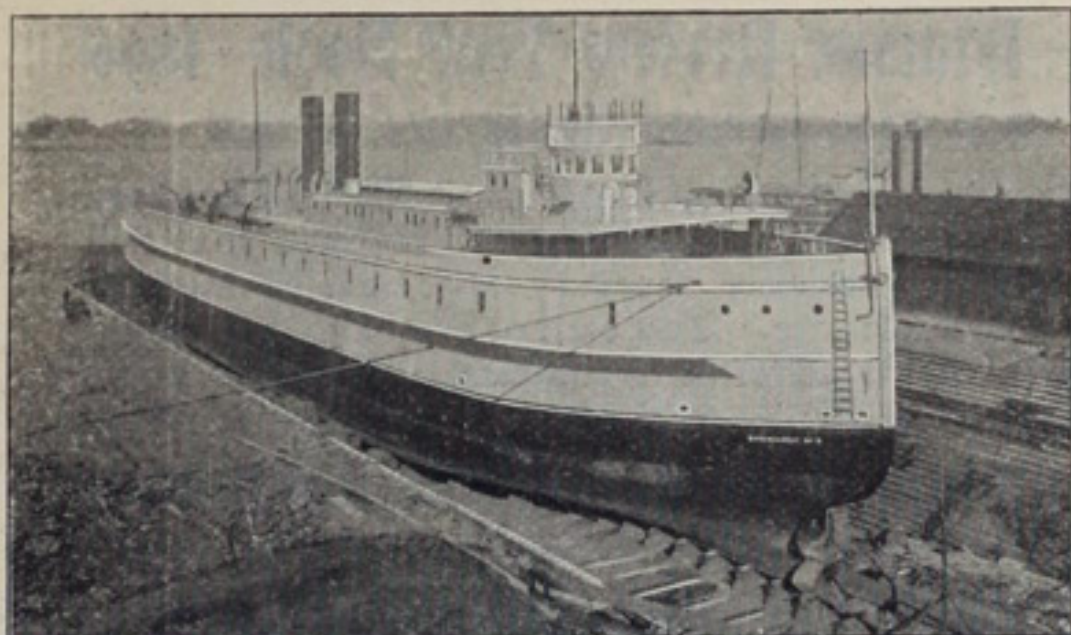
Including the Five Lakes on Four Charts.—New Charts of the Sault River, showing the new Hay Lake Channel and Channel to the Canadian Locks. In fact, all New Charts and Sailing Directions are kept on hand and will be mailed to any address, by the

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Repairs to Metal and Wooden Ships
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Have built 800 BOILERS TO DATE for...
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Launches, Yachts, Passenger and Freight Steamers, Dredges, Tugs, Stern-Wheelers, Canalers; also for Navy Department, War Department, Treasury Department, Light-House Board and Revenue Cutter Service; also for N. Y. Dock Department and U. S. Supervisor, Harbor of N. Y.

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Never killed a man or had a serious accident. \$250,000 capital. Works covering 29,000 square feet of ground. Never had a boiler returned on account of dissatisfaction. Every Boiler Warranted. All material made specially for our use. All boilers tested at 500 pounds hydrostatic pressure and 250 pounds of steam before shipping. Workman-ship strictly first-class. All joints screwed and reliable. No expanded joints. State your requirements and we will furnish specifications. Correspondence solicited.

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39 and 41 Cortlandt Street, New York City.

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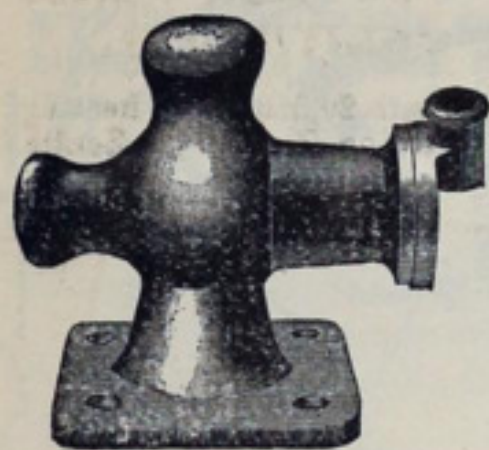
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For information enquire of H. J. JOHNSON, Cleveland, O.

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Takes the place of wooden or iron bitts and forms a Combination Bitt and Winch. Takes up less room than the ordinary bitt. Can be used to great advantage as a Windlass or Sheet Holder on Yachts. An examination will convince you of the many uses to which it can be put.

Carried in stock by Ship Chandlers
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THE ENOS SHEET HOLDER CO.

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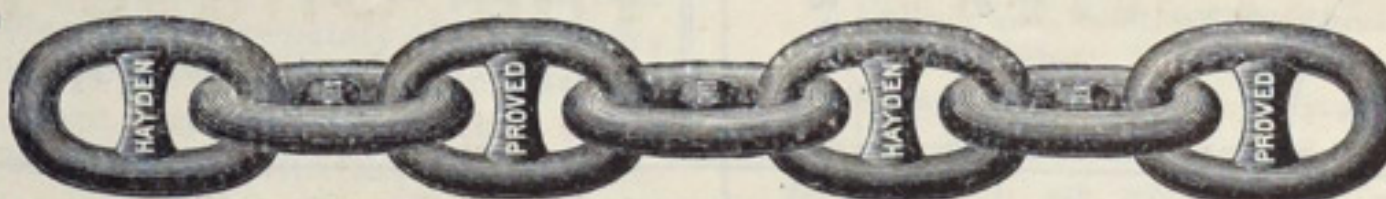
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Our Chain in use on the Largest Steamers on the Lakes:

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North West and North Land,
and many others.



All kinds of Chain—
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Write for Prices.

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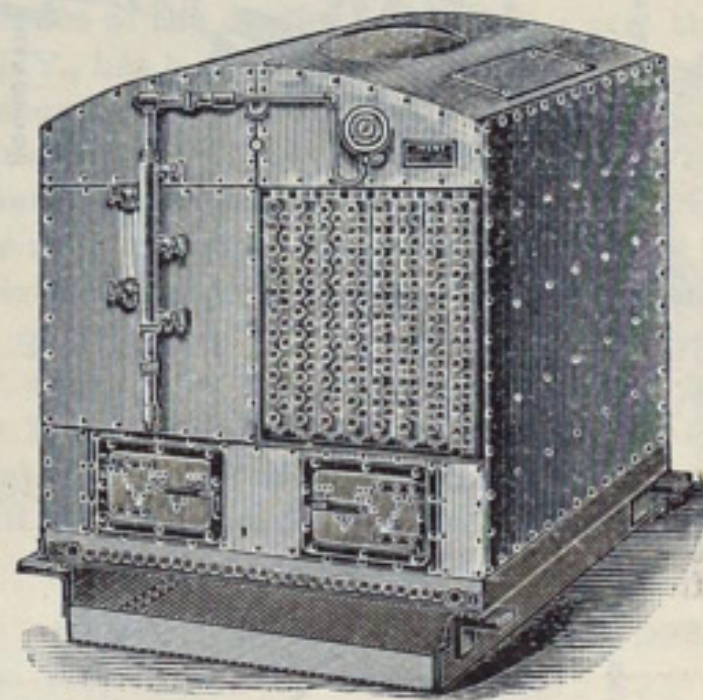
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THE WEST PATENT Safety Water Tube Boiler

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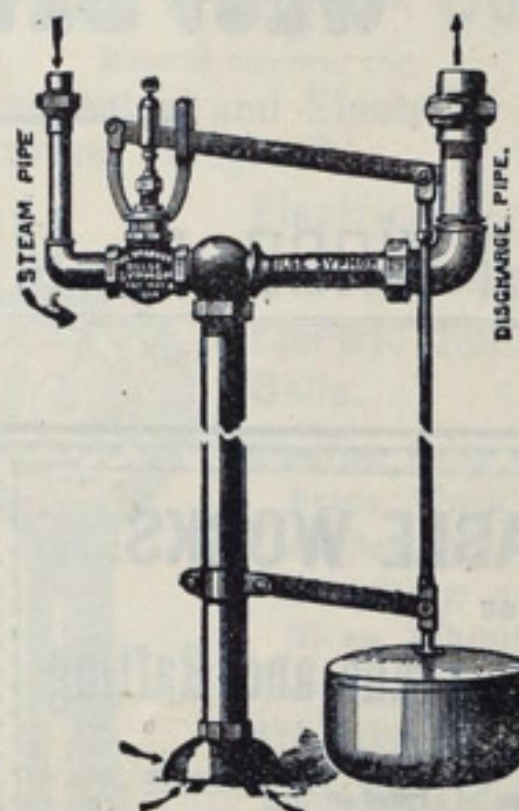


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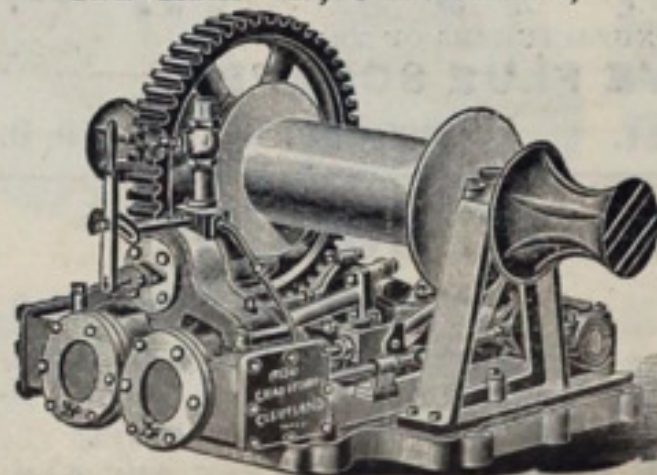
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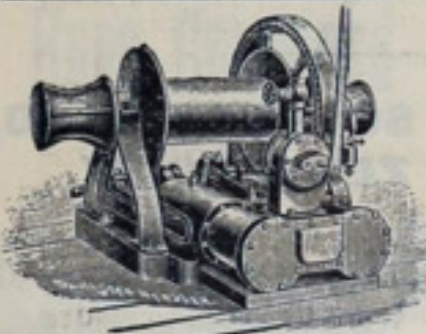
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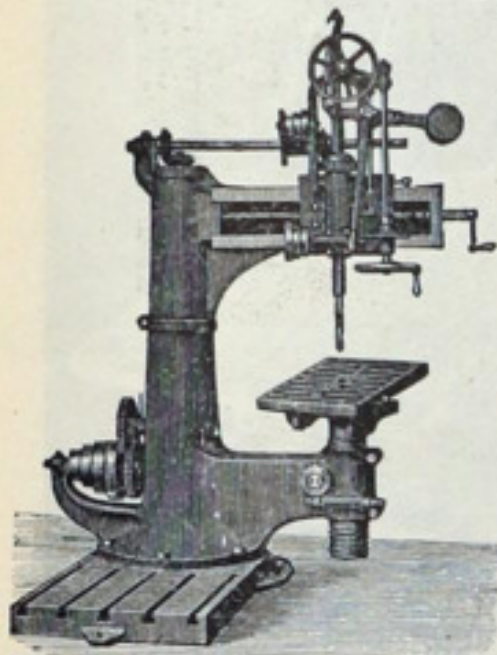
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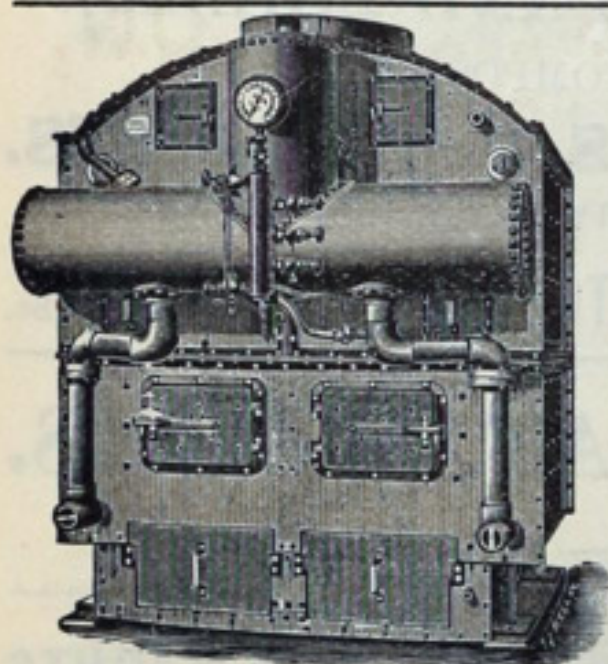
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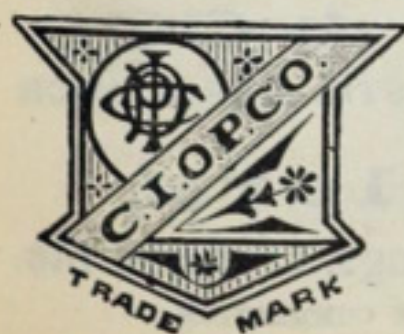
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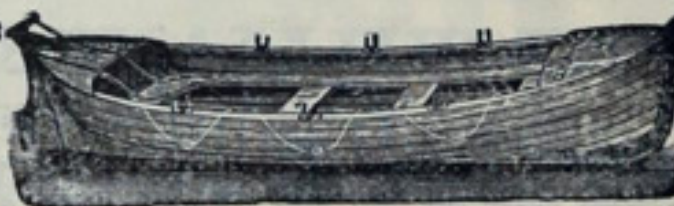
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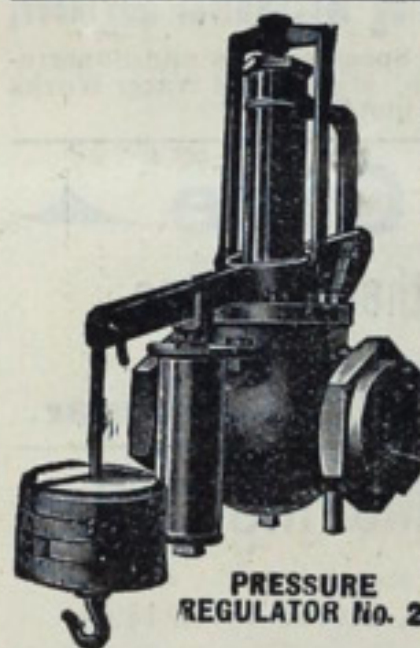
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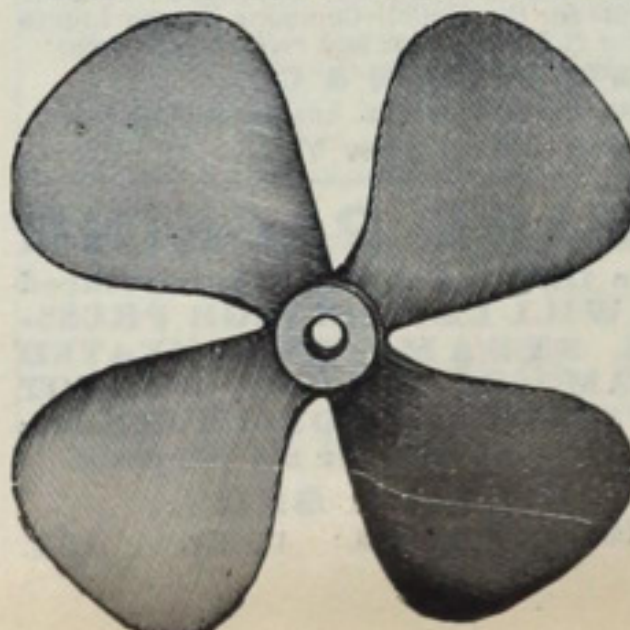
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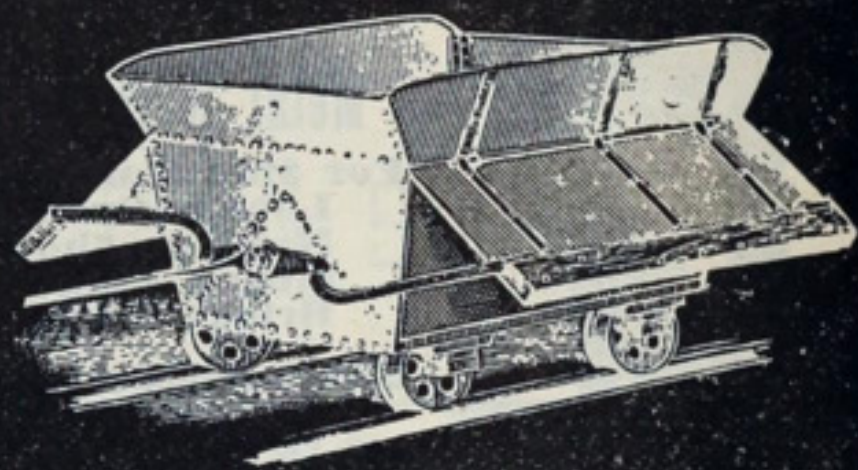
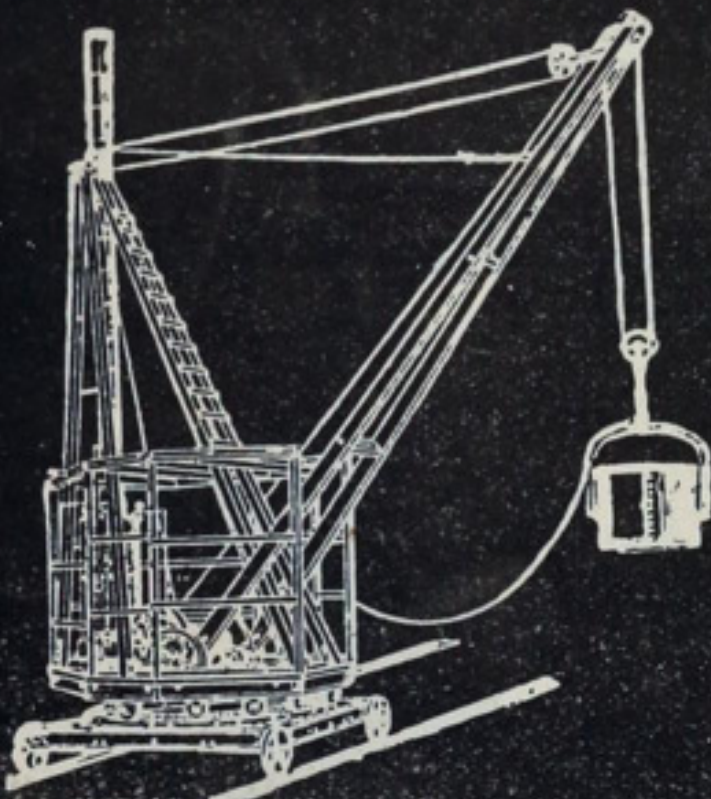
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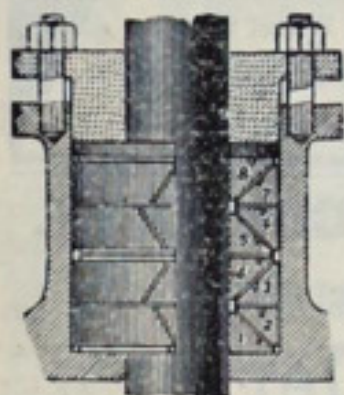
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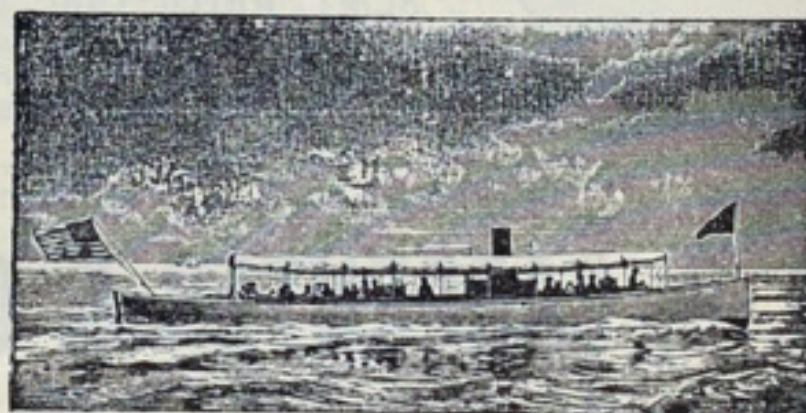
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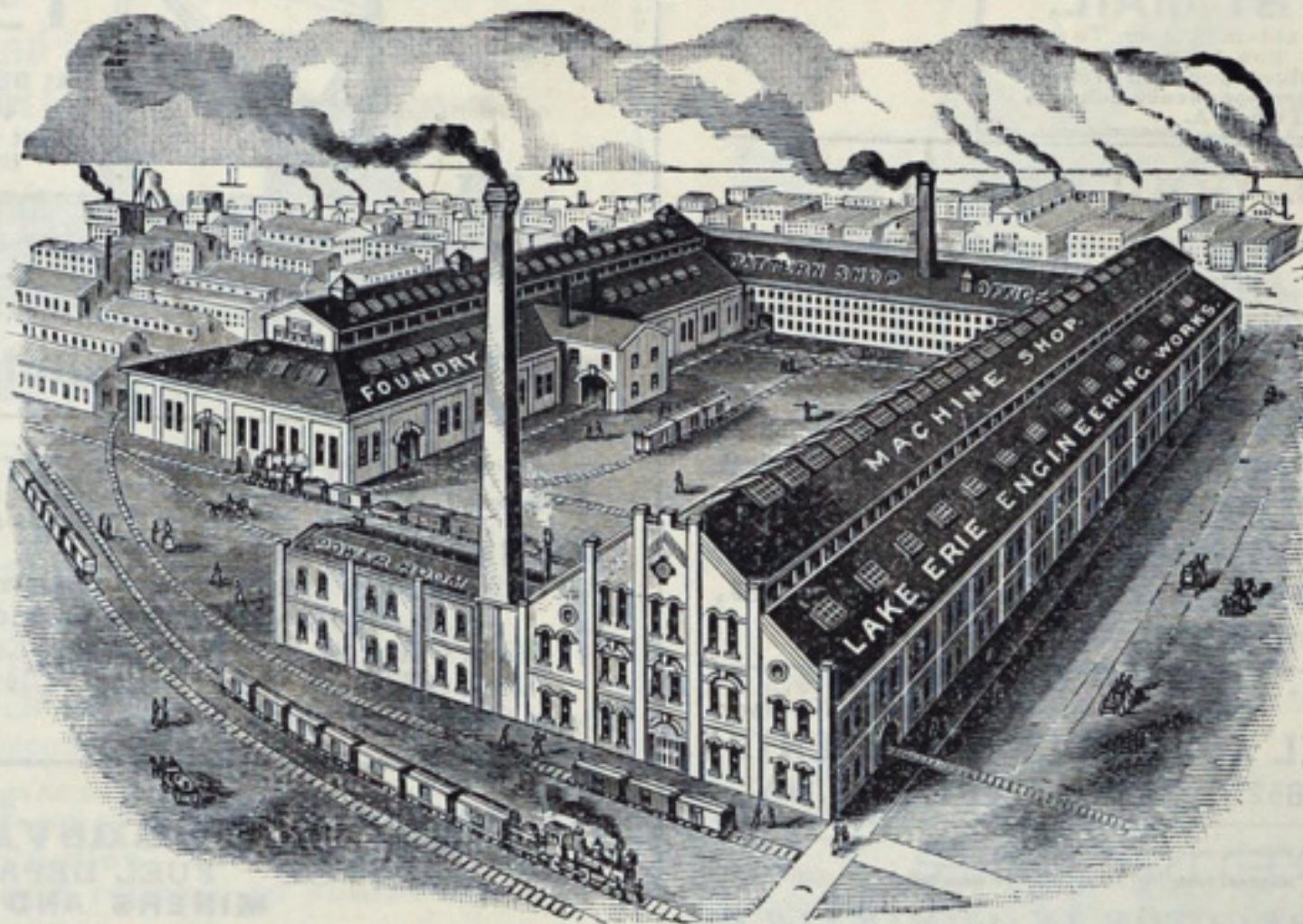
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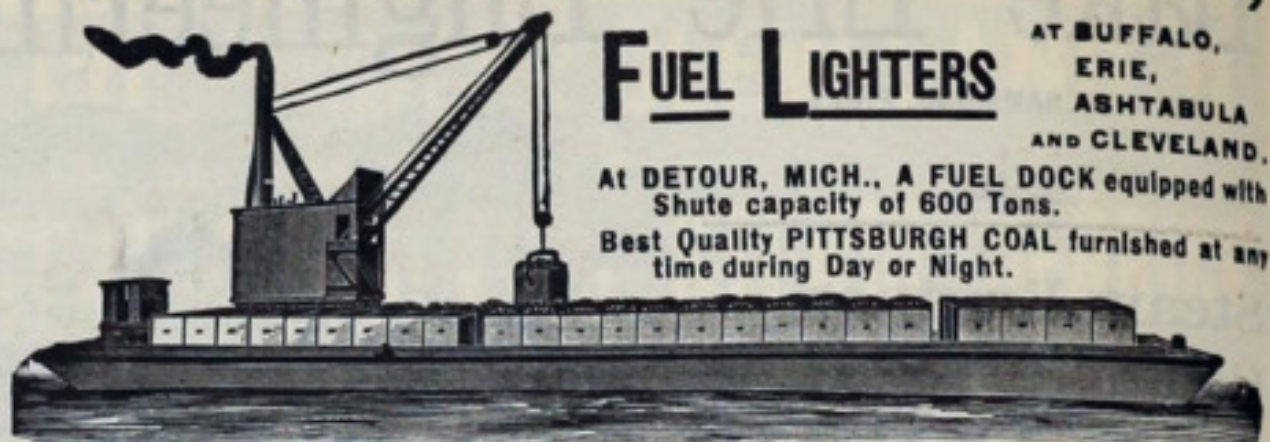
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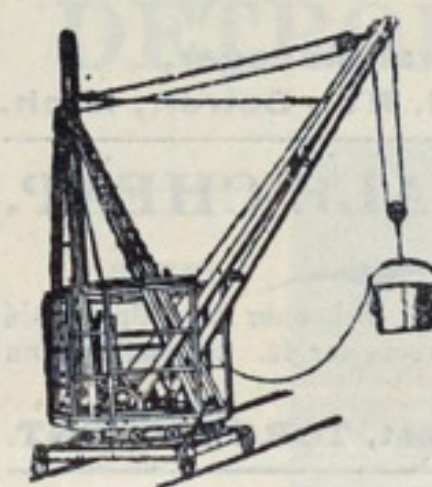
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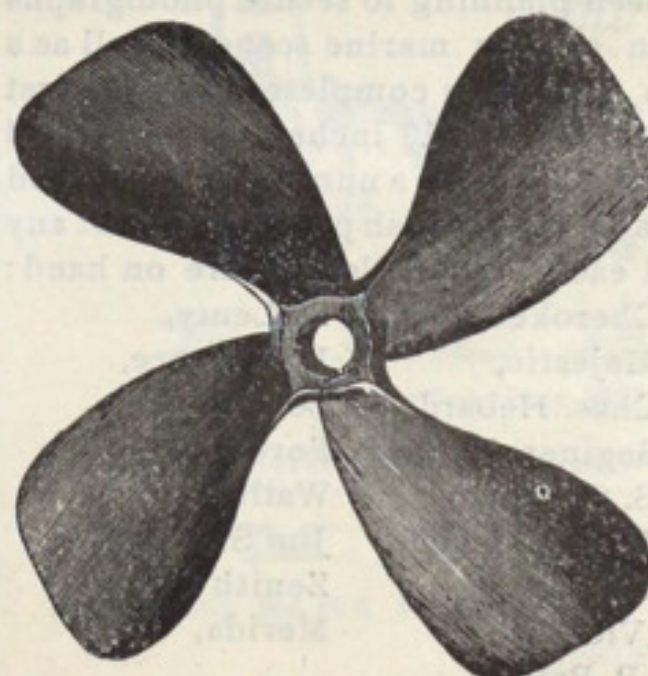
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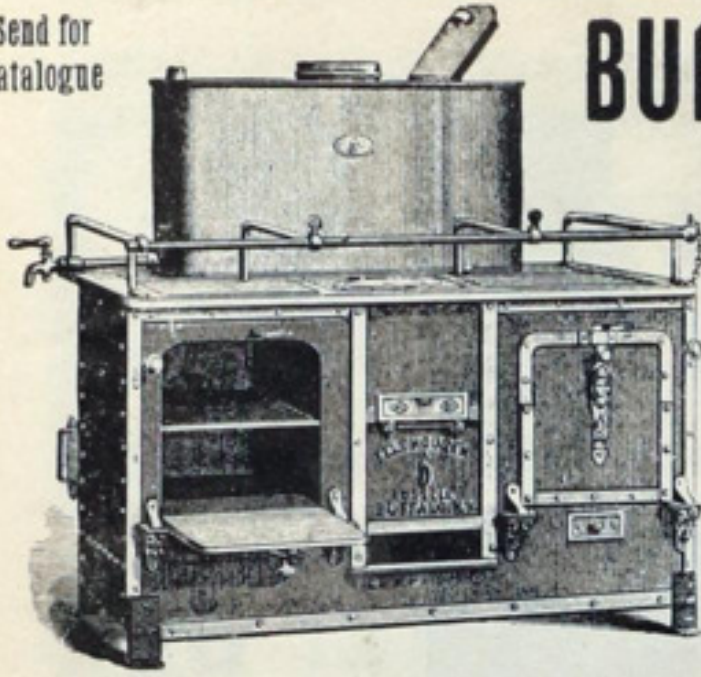
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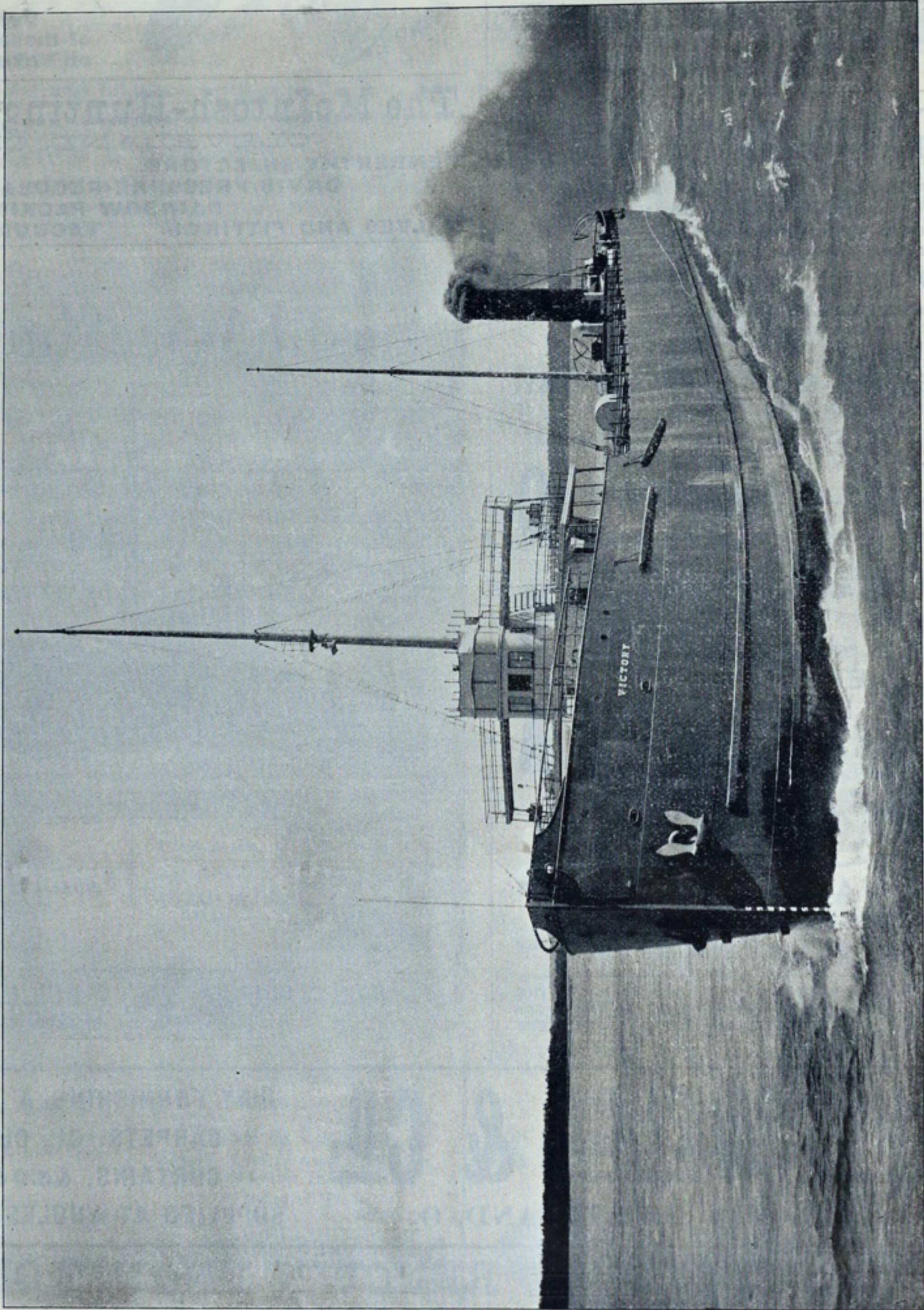
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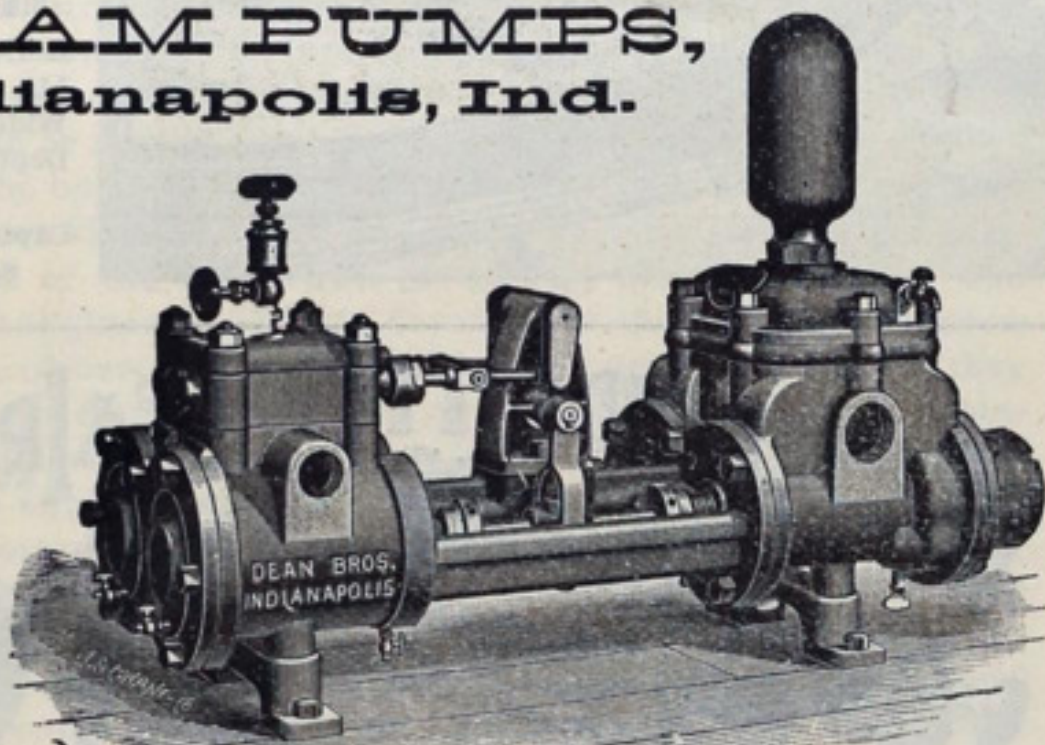
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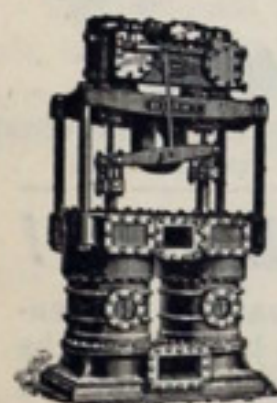
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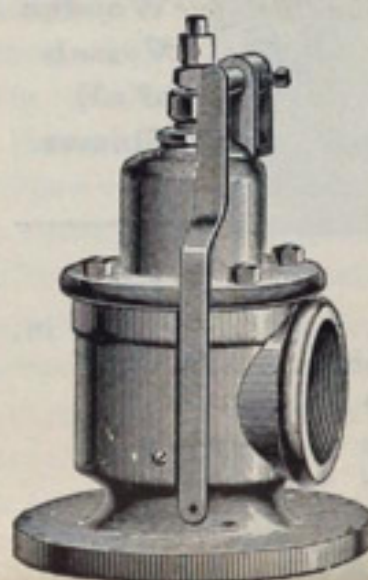
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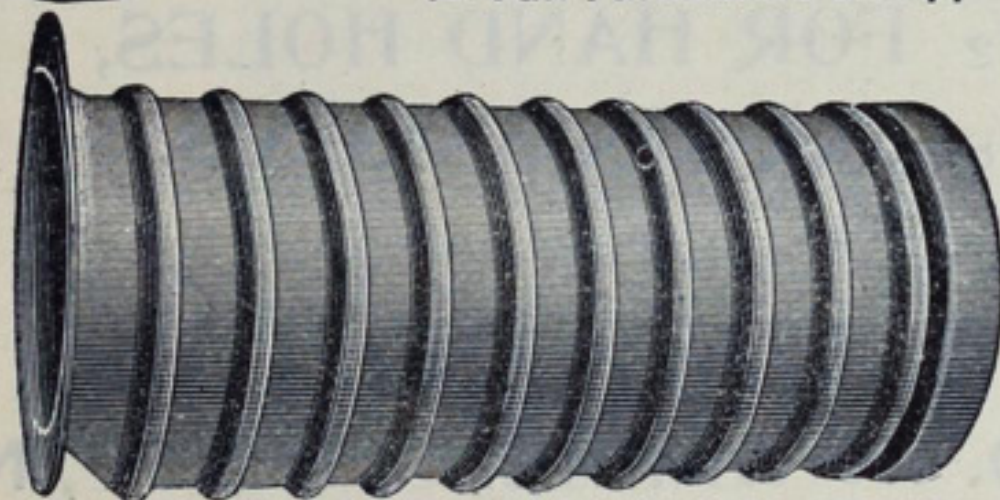
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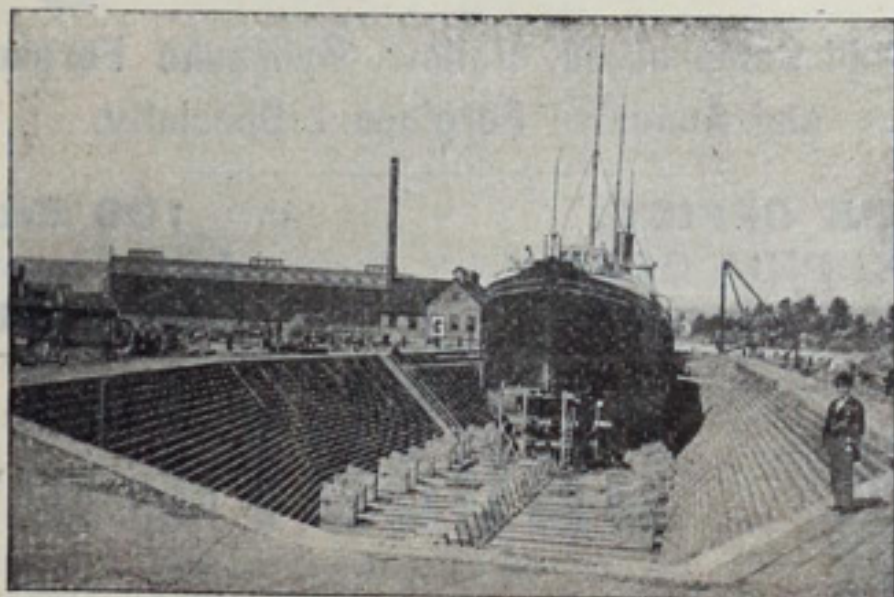
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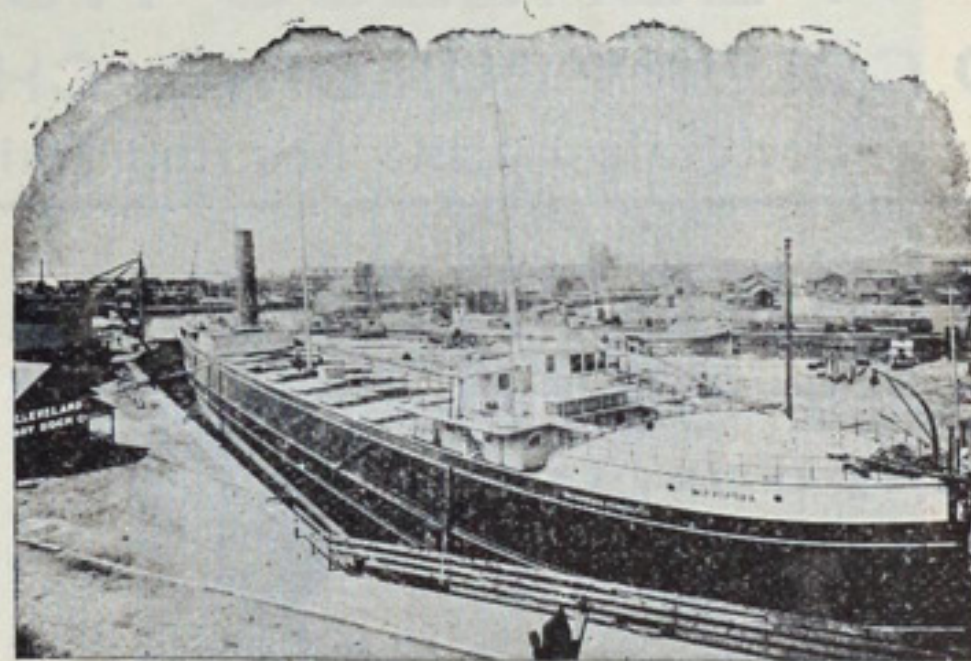
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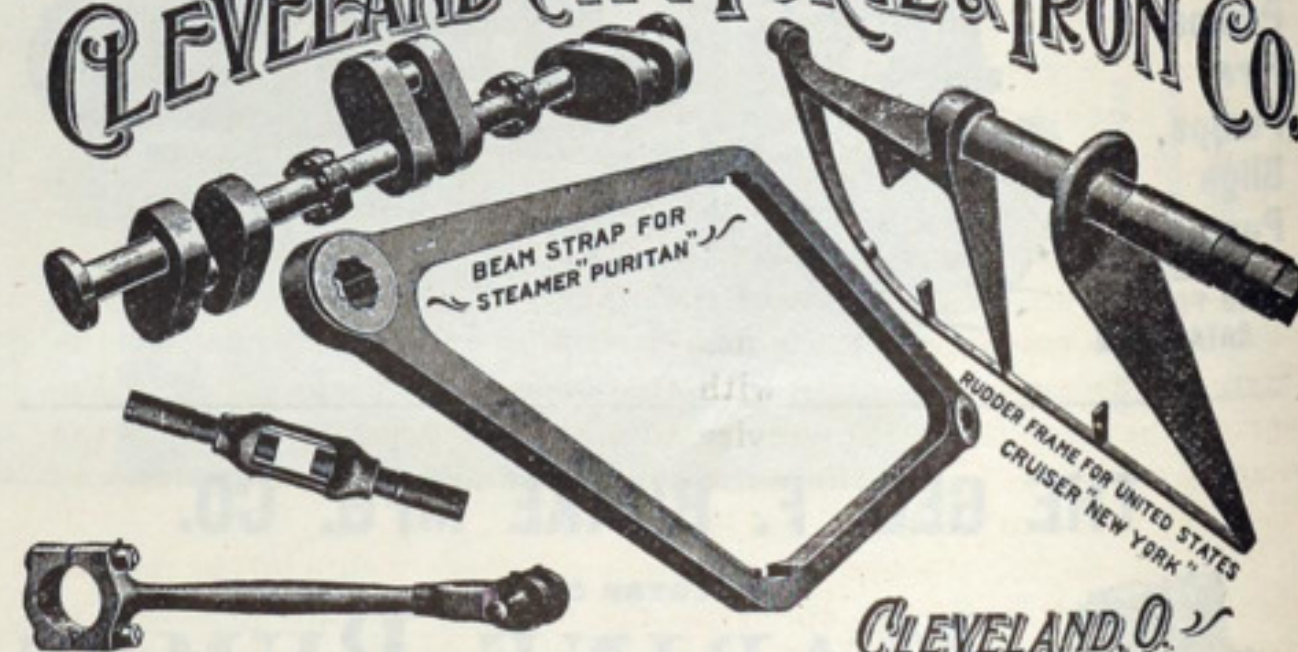
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